



IMMC 143 PCT.US.ST25.txt
SEQUENCE LISTING

<110> Immunivest Corporation
O'Hara, Shawn Mark
Foulk, Brad
Zweitzig, Daniel

<120> Multiparameter analysis of comprehensive nucleic acids and
morphological features on the same sample

<130> IMMC 143 PCT/US

<140> 10/826585
<141> 2004-04-16

<150> 60/369945
<151> 2002-04-04

<150> 60/330669
<151> 2002-11-26

<150> PCT/US02/26867
<151> 2002-08-23

<160> 131

<170> PatentIn version 3.3

<210> 1
<211> 900
<212> DNA
<213> Human

<400> 1
tgcccccgcg ccccaagcat aaaccctggc gcgctcgcg cccggcactc ttctggtccc 60
cacagactca gagagaaccc accatggtgc tgtctcctgc cgacaagacc aacgtcaagg 120
ccgcctgggg taaggctggc gcgcacgctg gcgagtatgg tgcggaggcc ctggagaggt 180
gaggctccct cccctgctcc gaccggggt cctcgcccg cccgacccac aggccaccct 240
caaccgtcct ggccccggac ccaaacccca cccctcactc tgcttctccc cgcaggatgt 300
tcctgtcctt cccaccacc aagacctact tccgcactt cgacctgagc cacggctctg 360
cccagggttaa gggccacggc aagaagggtg ccgacgcgct gaccaacgcc gtggcgcacg 420
tggacgacat gccaacgcg ctgtccgccc tgagcgacct gcacgcgcac aagcttcggg 480
tggaccggt caacttcaag gtgagcggcg ggccgggagc gatctgggtc gaggggagc 540
atggcgctt cctcgaggc cagaggatca cgcgggttgc gggagggtga gcgcaggcg 600
cggctgcgga cctgggccct cggccccact gaccctcttc tctgcacagc tcctaagcca 660
ctgcctgctg gtgaccctgg ccgcccacct ccccgccgag ttcacccctg cgggtgcacg 720
ctccctggac aagttcctg cttctgtgag caccgtgctg acctccaaat accgttaagc 780
tggagcctcg gtggccatgc ttcttgcccc ttgggcctcc cccagcccc tcctcccctt 840
cctgcaccg taccctcggt gtctttgaat aaagtctgag tgggcggcag cctgtgtgtg 900

<210> 2
 <211> 4314
 <212> DNA
 <213> Human

<400> 2
 cgagatcccg gggagccagc ttgctgggag agcgggacgg tccggagcaa gcccagagggc 60
 agaggagggc acagagggaa aaagggccga gctagccgct ccagtgtgt acaggagccg 120
 aagggacgca ccacgccagc cccagcccgg ctccagcgac agccaacgcc tcttgacgag 180
 cggcggcttc gaagccgccg cccggagctg ccctttcctc ttcggtgaag tttttaaaag 240
 ctgctaaaga ctgaggagaa gcaaggaaag tgcctggtag gactgacggc tgcctttgtc 300
 ctctctctct ccaccccgcc tccccccacc ctgccttccc cccctcccc gtcttctctc 360
 ccgcagctgc ctgagtcggc tactctcagc caacccccct caccaccctt ctccccaccc 420
 gccccccgc ccccgctcggc ccagcgtgc cagcccaggt ttgcagagag gtaactccct 480
 ttggctgcga gcgggagc tagctgcaca ttgcaaagaa ggctcttagg agccaggcga 540
 ctggggagcg gcttcagcac tgcagccacg acccgctgg ttaggctgca cgcggagaga 600
 accctctgtt tccccccact ctctctccac ctctctctgc cttccccacc ccgagtgagg 660
 agccagagat caaaagatga aaaggcagtc aggtcttcag tagccaaaaa acaaaacaaa 720
 caaaacaaa aaagccgaaa taaaagaaaa agataataac tcagttctta tttgcaccta 780
 cttcagtgga cactgaattt ggaagggtga ggattttgtt tttttctttt aagatctggg 840
 catcttttga atctaccctt caagtattaa gagacagact gtgagcctag cagggcagat 900
 cttgtccacc gtgtgtcttc ttctgcacga gactttgagg ctgtcagagc gctttttgag 960
 tggttgctcc cgcaagtttc cttctctgga gctttccgca ggtgggagc tagctgcagc 1020
 gactaccgca tcatcacagc ctgttgaact cttctgagca agagaagggg aggcggggta 1080
 agggaagtag gtggaagatt cagccaagct caaggatgga agtgagttta gggctgggaa 1140
 gggctctacc tcggccgccg tccaagacct accgaggagc tttccagaat ctgttccaga 1200
 gcgtgcgcga agtgatccag aacccgggccc ccaggcacc agaggccgcg agcgcagcac 1260
 ctcccggcgc cagtttgctg ctgctgcagc agcagcagca gcagcagcag cagcagcagc 1320
 agcagcagca gcagcagcag cagcagcagc agcaagagac tagccccagg cagcagcagc 1380
 agcagcaggg tgaggatggt tctccccaag cccatcgtag aggccccaca ggctacctgg 1440
 tcctggatga ggaacagcaa ccttcacagc cgcagtcggc cctggagtgc caccgccaga 1500
 gaggttgctg cccagagcct ggagccgccg tggccgccag caaggggctg ccgcagcagc 1560
 tgccagcacc tccggacgag gatgactcag ctgccccatc cacgttgtcc ctgctgggcc 1620
 ccactttccc cggcttaagc agctgctccg ctgaccttaa agacatcctg agcgaggcca 1680

IMMC 143 PCT.US.ST25.txt

gcaccatgca	actccttcag	caacagcagc	aggaagcagt	atccgaaggc	agcagcagcg	1740
ggagagcgag	ggaggcctcg	ggggctccca	cttcctccaa	ggacaattac	ttagggggca	1800
cttcgacat	ttctgacaac	gccaaaggag	tgtgtaaggc	agtgtcgggt	tccatgggcc	1860
tgggtgtgga	ggcgttggag	catctgagtc	caggggaaca	gcttcggggg	gattgcatgt	1920
acgccccact	tttgggagtt	ccacccgctg	tgcgtcccac	tccttggtcc	ccattggccg	1980
aatgcaaagg	ttctctgcta	gacgacagcg	caggcaagag	cactgaagat	actgctgagt	2040
attccccctt	caagggaggt	tacaccaaag	ggctagaagg	cgagagccta	ggctgctctg	2100
gcagcgtgc	agcagggagc	tccgggacac	ttgaactgcc	gtctaccctg	tctctctaca	2160
agtccggagc	actggacgag	gcagctgcgt	accagagtcg	cgactactac	aactttccac	2220
tggctctggc	cggaccgccg	ccccctccgc	cgctcccca	tccccacgct	cgcatcaagc	2280
tggagaacct	gctggactac	ggcagcgctt	ggcggtgtgc	ggcggtcgag	tgccgctatg	2340
gggacctggc	gagcctgcat	ggcggtgtgt	cagcgggacc	cggttctggg	tcaccctcag	2400
ccgccgttc	ctcatcctgg	cacactctct	tcacagccga	agaaggccag	ttgtatggac	2460
cgtgtggtgg	tgggtggggg	ggtggcggtg	gcggcggtcg	cggtggcggt	ggcggtggcg	2520
gcggcggtcg	cggtgaggtg	ggagctgtag	ccccctacgg	ctacactcgg	ccccctcagg	2580
ggctggcggt	ccaggaaagc	gacttcaccg	cacctgatgt	gtggtaccct	ggcggtcatg	2640
tgagcagagt	gccctatccc	agtcctcact	gtgtcaaaaag	cgaaatgggc	ccctggatgg	2700
atagctactc	cggaccttac	ggggacatgc	gtttggagac	tgccagggac	catgttttgc	2760
ccattgacta	ttactttcca	ccccagaaga	cctgcctgat	ctgtggagat	gaagcttctg	2820
ggtgtcacta	tggagctctc	acatgtggaa	gctgcaagg	cttcttcaaa	agagccgctg	2880
aagggaaaca	gaagtacctg	tgcgccagca	gaaatgattg	cactattgat	aaattccgaa	2940
ggaaaaattg	tccatcttgt	cgtcttcgga	aatgttatga	agcagggatg	actctgggag	3000
cccggaaagt	gaagaaactt	ggtaatctga	aactacagga	ggaaggagag	gcttccagca	3060
ccaccagccc	cactgaggag	acaacccaga	agctgacagt	gtcacacatt	gaaggctatg	3120
aatgtcagcc	catctttctg	aatgtcctgg	aagccattga	gccaggtgta	gtgtgtgctg	3180
gacacgacaa	caaccagccc	gactcctttg	cagccttgct	ctctagcctc	aatgaactgg	3240
gagagagaca	gcttgtagac	gtggtcaagt	gggccaaggc	cttgctggc	ttccgcaact	3300
tacacgtgga	cgaccagatg	gctgtcattc	agtactcctg	gatggggctc	atgggtgttg	3360
ccatgggctg	gcgatccttc	accaatgtca	actccaggat	gctctacttc	gccccctgatc	3420
tggttttcaa	tgagtaccgc	atgcacaagt	cccggatgta	cagccagtgt	gtccgaatga	3480
ggcacctctc	tcaagagttt	ggatggctcc	aaatcacccc	ccaggaattc	ctgtgcatga	3540

IMMC 143 PCT.US.ST25.txt

aagcactgct actcttcagc attattccag tggatgggct gaaaaatcaa aaattctttg 3600
atgaacttcg aatgaactac atcaaggaac tcgatcgtat cattgcatgc aaaagaaaaa 3660
atcccacatc ctgctcaaga cgcttctacc agctcaccaa gtcctggac tccgtgcagc 3720
ctattgcbag agagctgcat cagttcactt ttgacctgct aatcaagtca cacatgggtga 3780
gcgtggactt tccggaaatg atggcagaga tcatctctgt gcaagtgcc aagatccttt 3840
ctgggaaagt caagcccatc tatttcaca cccagtgaag cattggaaac cctatttccc 3900
caccacagct catgccccct ttcagatgct ttctgcctgt tataactctg cactactcct 3960
ctgcagtgcc ttggggaatt tcctctattg atgtacagtc tgtcatgaac atgttcctga 4020
attctatttg ctgggctttt ttttctctt tctctcctt ctttttctt ttcctcctt 4080
atctaaccct cccatggcac cttcagactt tgcttcccat tggggctcct atctgtgttt 4140
tgaatgggtg tgtatgcctt taaatctgtg atgacctca tatggcccag tgtcaagttg 4200
tgcttgttta cagcactact ctgtgccagc cacacaaacg tttacttatt ttatgccacg 4260
ggaagtttag agagctaaga ttatctgggg aaatcaaaac aaaaacaagc aaac 4314

<210> 3
<211> 3007
<212> DNA
<213> Human

<400> 3
ggagtttctg gagggctgaa cacgtggagg caaacaggaa ggtgaagaag aacttattcct 60
atcaggacgg aaggctcctgt gctcgggac ttccagacgt cgcgactcta aattgcccc 120
tctgaggtca aggaacacaa gatgggtttg gaaatgctga acccgataca ttataacatc 180
accagcatcg tgcctgaagc catgcctgct gccaccatgc cagtcctgct cctcactggc 240
cttttctct tgggtgtggaa ttatgagggc acatcctcaa taccaggtcc tggctactgc 300
atgggaattg gaccctcat ctccacggc agattcctgt ggatggggat cggcagtgcc 360
tgcaactact acaaccgggt atatggagaa ttcattgcgag tctggatctc tggagaggaa 420
acactcatta tcagcaagtc ctcaagtatg ttccacataa tgaagcaca tcattacagc 480
tctcgattcg gcagcaaaact tgggctgcag tgcacggta tgcattgagaa aggcattcata 540
tttaacaaca atccagagct ctggaaaaca actcgaccct tctttatgaa agctctgtca 600
ggccccggcc ttgttcgtat gggtcacagtc tgtgtgtaac cctcaaaac acatctggac 660
aggttggagg aggtgaccaa tgaatcggc tatgtggacg tgttgaccct tctgcgtcgt 720
gtcatgctgg acacctctaa cacgctctt ttgaggatcc ctttggacga aagtgtctatc 780
gtgggttaaaa tccaagggtt ttttgatgca tggcaagctc tcctcatcaa accagacatc 840
ttctttaaga tttcttggct atacaaaaag tatgagaagt ctgtcaagga tttgaaagat 900

IMMC 143 PCT.US.ST25.txt

gccatagaag ttctgatagc agaaaaaaga cgcaggattt ccacagaaga gaaactggaa 960
gaatgtatgg actttgccac tgagttgatt ttagcagaga aacgtggtga cctgacaaga 1020
gagaatgtga accagtgcac attggaaatg ctgatcgag ctcctgacac catgtctgtc 1080
tctttgttct tcatgctatt tctcattgca aagcacccta atgttgaaga ggcaataata 1140
aaggaaatcc agactgttat tggtagaga gacataaaga ttgatgatat acaaaaatta 1200
aaagtgatgg aaaacttcat ttatgagagc atgcggtacc agcctgtcgt ggacttggtc 1260
atgacgaaag ccttagaaga tgatgtaatc gatggctacc cagtgaataa ggggacaaac 1320
attatcctga atattggaag gatgcacaga ctcgagtttt tccccaaacc caatgaattt 1380
actcttgaaa attttgcaaa gaatgttctt tataggtact ttcagccatt tggctttggg 1440
ccccgtggct gtgcaggaaa gtacatcgcc atggtgatga tgaaagccat cctcgttaca 1500
cttctgagac gattccacgt gaagacattg caaggacagt gtgttgagag catacagaag 1560
atacagact tgtccttgca cccagatgag actaaaaaca tgctggaaat gatctttacc 1620
ccaagaaact cagacaggtg tctggaacac tagagaaggc tggtcagtac ctactctgga 1680
gcattttctca tcagtagttc acatacaaat catccatcct tgccaatagt gtcacctca 1740
cagtgaacac tcagtggccc atggcatttt ataggcatac ctcttatggg ttgtcaccaa 1800
gctaggtgct attggtcatc tgctcctgtt cacaccagag aaccaggcta caagagaaaa 1860
agcagaggcc aagagtttga gggagaaata gtcggtgaag aaaccgtatc cataaagacc 1920
cgattccacc aaatgtgctt tgagaaggat aggccttcat taacaaaatg tatgtctggt 1980
tccccagtag agctctactg cctcaaccca aggggatttt tatgtctggg gcagaaacac 2040
tcaagttgat tagaaagacc aggccaatgt cagggtacct ggggccaaac ccacctgcta 2100
gtgtgaatta aagtacttta attttgtttt ctgtggaggt ggaaaagcaa cattcatagt 2160
ctttggagaa atgcttagaa attcagcatt tgacccttgc tgtgaattaa gcccaattaa 2220
ttcctgtttg tctacatatg atctgtctgt ggcaaaagt taatcagagg aaattctttc 2280
ccagtctgtc gatttatgcc tcagccactt gcctgtgcta caattcattg tgttacctgt 2340
agattcaggt aatacaaaact atatataatc atcaagtaat acaaaactaat ttagtaatat 2400
cctgggttaa gtattattag ggccctgtgt ctgctgtaga aaaaaaaatt cacatgatgc 2460
acttcaaatt caaataaaaa tccttttggc atgttcccat ttttgcttag ctcaattagt 2520
gtggctaacc aagagataac tgtaaatgtg acattgattt gctcttacta cagcttcagt 2580
gattggggga ggaaaagtcc caacccaatg ggctcaaaact tctaaggggt actcctctca 2640
tccccctatc cttctccctc gacattttct ccctctttct tcccatgacc ccaaagccaa 2700
gggcaacaga tcagtaaaga acgtgggtcag agtagaacc ctgaagtatt ttttaacct 2760
acctcaaaat ttaacagtta cctgagagat ttaacattat ctagttcatt gaatcattgt 2820

IMMC 143 PCT.US.ST25.txt

atgtggtcat	ggataaattg	cacaccttgg	aattcgcttt	ctaaaggaaa	tcaaataaat	2880
ggaggaactt	tccaaacacc	actttacttg	tggtatatag	ccaatataac	tatctctact	2940
gaatgtcatt	gaaaaactaa	aaaattaaac	ttatttacaa	ataggtaaaa	aaaaaaaaaa	3000
aaaaaaa						3007

<210> 4
 <211> 6030
 <212> DNA
 <213> Human

<400> 4						
gttggcccc	gttacttttc	ctctgggaaa	tatggcgcac	gctgggagaa	cagggtacga	60
taaccgggag	atagtgatga	agtacatcca	ttataagctg	tcgcagaggg	gctacgagtg	120
ggatgcggga	gatgtgggcg	ccgcgcccc	gggggcccgc	cccgcgccgg	gcatcttctc	180
ctcgcagccc	gggcacacgc	cccatacagc	cgcaccccgg	gacccggctc	ccaggacctc	240
gccgctgcag	accccggtcg	cccccgccgc	cgccgcgggg	cctgcgctca	gcccgggtgcc	300
acctgtggtc	cacctgacct	tccgccaggc	cggcgacgac	ttctcccgcc	gctaccgccg	360
cgacttcgcc	gagatgtcca	ggcagctgca	cctgacgccc	ttcaccgcgc	ggggacgctt	420
tgccacggtg	gtggaggagc	tcttcaggga	cggggtgaac	tgggggagga	ttgtggcctt	480
ctttgagttc	gggtgggtca	tgtgtgtgga	gagcgtcaac	cgggagatgt	cgcccctggt	540
ggacaacatc	gccctgtgga	tgactgagta	cctgaaccgg	cacctgcaca	cctgggatcca	600
ggataacgga	ggctgggatg	cctttgtgga	actgtacggc	cccagcatgc	ggcctctgtt	660
tgatttctcc	tggtgtctc	tgaagactct	gctcagtttg	gccctggtgg	gagcttgcac	720
caccctgggt	gcctatctgg	gccacaagtg	aagtcaacat	gcctgcccc	aacaaatatg	780
caaaagggtc	actaaagcag	tagaaataat	atgcattgtc	agtgatgttc	catgaaacaa	840
agctgcaggc	tgtttaagaa	aaaataacac	acatatatac	atcacacaca	cagacagaca	900
cacacacaca	caacaattaa	cagtcttcag	gcaaaacgtc	gaatcagcta	tttactgcca	960
aagggaaata	tcattttattt	tttacattat	taagaaaaaa	agattttattt	atttaagaca	1020
gtcccatcaa	aactcctgtc	tttggaatc	cgaccactaa	ttgccaagca	ccgcttcgtg	1080
tggctccacc	tggtgtttct	gtgcctgtaa	acatagattc	gctttccatg	ttgttggtgg	1140
gatcaccatc	tgaagagcag	acggatggaa	aaaggacctg	atcattgggg	aagctggcct	1200
tctggctgct	ggaggctggg	gagaagggtg	tcattcactt	gcatttcttt	gccctggggg	1260
ctgtgatatt	aacagagggg	gggttcctgt	gggggggaagt	ccatgcctcc	ctggcctgaa	1320
gaagagactc	tttgcataatg	actcacatga	tgcatacctg	gtgggaggaa	aagagttggg	1380
aacttcagat	ggacctagta	cccactgaga	tttccacgcc	gaaggacagc	gatgggaaaa	1440

IMMC 143 PCT.US.ST25.txt

atgcccttaa	atcataggaa	agtatttttt	taagctacca	attgtgccga	gaaaagcatt	1500
ttagcaattt	atacaatatc	atccagtacc	ttaagccctg	attgtgtata	ttcatatat	1560
ttggatacgc	accccccaac	tccaataact	ggctctgtct	gagtaagaaa	cagaatcctc	1620
tggaacttga	ggaagtgaac	atttcggtga	cttccgcatac	aggaaggcta	gagttaccca	1680
gagcatcagg	ccgccacaag	tgccctgctt	taggagaccg	aagtccgcag	aacctgcctg	1740
tgctccagct	tggaggcctg	gtcctggaac	tgagccgggg	ccctcactgg	cctcctccag	1800
ggatgatcaa	cagggcagtg	tggctctccga	atgtctggaa	gctgatggag	ctcagaattc	1860
cactgtcaag	aaagagcagt	agaggggtgt	ggctgggcct	gtcacccctg	ggccctccag	1920
gtaggcccgt	tttcacgtgg	agcatgggag	ccacgaccct	tcttaagaca	tgtatcactg	1980
tagaggggaag	gaacagaggc	cctggggccct	tcctatcaga	aggacatggg	gaaggctggg	2040
aacgtgagga	gaggcaatgg	ccacggccca	ttttggctgt	agcacatggc	acgttggctg	2100
tgtggccttg	gcccacctgt	gagtttaaa	caaggcttta	aatgactttg	gagaggggtca	2160
caaatcctaa	aagaagcatt	gaagtgaggt	gtcatggatt	aattgacccc	tgtctatgga	2220
attacatgta	aaacattatc	ttgtcactgt	agtttggttt	tatttgaaaa	cctgacaaaa	2280
aaaaagtcc	agggtgtgga	tatgggggtt	atctgtacat	cctggggcat	taaaaaaaaa	2340
atcaatggtg	gggaactata	aagaagtaac	aaaagaagtg	acatcttcag	caaataaaact	2400
aggaaaattt	tttttcttcc	agtttagaat	cagccttgaa	acattgatgg	aataactctg	2460
tggcattatt	gcattatata	ccatttatct	gtattaactt	tggaatgtac	tctgttcaat	2520
gtttaatgct	gtggttgata	tttcgaaagc	tgctttaaaa	aaatacatgc	atctcagcgt	2580
ttttttgttt	ttaattgtat	ttagttatgg	cctatacact	atttgtgagc	aaaggatgatc	2640
gttttctgtt	tgagattttt	atctcttgat	tcttcaaaag	cattctgaga	aggtagagata	2700
agccctgagt	ctcagctacc	taagaaaaac	ctggatgtca	ctggccactg	aggagctttg	2760
tttcaacca	gtcatgtgca	tttccacgtc	aacagaattg	tttattgtga	cagttatatc	2820
tgttgtccct	ttgaccttgt	ttcttgaagg	tttcctcgtc	cctgggcaat	tccgcattta	2880
attcatggta	ttcaggatta	catgcatgtt	tggttaaacc	catgagattc	attcagttaa	2940
aaatccagat	ggcaaatac	cagcagattc	aaatctatgg	tggtttgacc	tttagagagt	3000
tgctttacgt	ggcctgtttc	aacacagacc	cacccagagc	cctcctgccc	tccttccgcg	3060
ggggctttct	catggctgtc	cttcagggtc	ttcctgaaat	gcagtgggtgc	ttacgctcca	3120
ccaagaaaagc	aggaaacctg	tggatatgaag	ccagacctcc	ccggcggggcc	tcagggaaca	3180
gaatgatcag	acctttgaat	gattctaatt	tttaagcaaa	atattatttt	atgaaagggtt	3240
tacattgtca	aagtgatgaa	tatggaatat	ccaatcctgt	gctgctatcc	tgccaaaatc	3300

attttaatgg agtcagtttg cagtatgctc cacgtggtaa gatcctccaa gctgctttag	3360
aagtaacaat gaagaacgtg gacgctttta atataaagcc tgttttgtct tctgttggtg	3420
ttcaaacggg attcacagag tatttgaaaa atgtatatat attaagaggt cacgggggct	3480
aattgctggc tggctgcctt ttgctgtggg gttttgttac ctggttttaa taacagtaaa	3540
tgtgcccagc ctcttgcccc cagaactgta cagtattgtg gctgcacttg ctctaagagt	3600
agttgatgtt gcatttttct tattgttaaa aacatgttag aagcaatgaa tgtatataaa	3660
agcctcaact agtcattttt ttctcctctt cttttttttc attatatcta attattttgc	3720
agttgggcaa cagagaacca tccctatttt gtattgaaga gggattcaca tctgcatctt	3780
aactgctctt tatgaatgaa aaaacagtcc tctgtatgta ctctcttta cactggccag	3840
ggtcagagtt aaatagagta tatgcacttt ccaaattggg gacaagggct ctaaaaaaag	3900
ccccaaaagg agaagaacat ctgagaacct cctcggccct cccagtccct cgctgcacaa	3960
atactccgca agagaggcca gaatgacagc tgacagggtc tatggccatc gggtcgtctc	4020
cgaagatttg gcaggggagc aaaactctgg caggcctaag atttggaata aagtcacaga	4080
atcaagggaag cacctcaatt tagttcaaac aagacgcaa cattctctcc acagctcact	4140
tacctctctg tggttcagatg tggccttcca tttatatgtg atctttgttt tattagtaaa	4200
tgcttatcat ctaaagatgt agctctggcc cagtgggaaa aattaggaag tgattataaa	4260
tcgagaggag ttataataat caagattaaa tgtaaataat cagggaatc ccaacacatg	4320
tctagctttc acctccagga tctattgagt gaacagaatt gcaaatagtc tctatttgta	4380
attgaactta tcctaaaaca aatagtttat aaatgtgaac ttaaactcta attaatcca	4440
actgtacttt taaggcagtg gctgttttta gactttctta tcacttatag ttagtaatgt	4500
acacctactc tatcagagaa aaacaggaaa ggctcgaaat acaagccatt ctaaggaaat	4560
tagggagtc gttgaaattc tattctgatac ttattctgtg gtgtcttttg cagcccagac	4620
aaatgtgggt acacactttt taagaaatac aattctacat tgtcaagctt atgaagggtc	4680
caatcagatc tttattgtta ttcaatttgg atctttcagg gatTTTTTTT ttaaattatt	4740
atgggacaaa ggacatttgt tggaggggtg ggagggagga acaattttta aatataaaac	4800
attcccaagt ttggatcagg gagttggaag ttttcagaat aaccagaact aagggtatga	4860
aggacctgta ttggggctga tgtgatgcct ctgcgaagaa ccttgtgtga caaatgagaa	4920
acattttgaa gtttggtgta cgacctttag attccagaga catcagcatg gctcaaagtg	4980
cagctccggt tggcagtgca atggtataaa tttcaagctg gatatgtcta atgggtattt	5040
aaacaataaa tgtgcagttt taactaacag gatatttaat gacaaccttc tggttggtag	5100
ggacatctgt ttctaaatgt ttattatgta caatacagaa aaaaatttta taaaattaag	5160
caatgtgaaa ctgaattgga gagtgataat acaagtcctt tagtcttacc cagtgaatca	5220

IMMC 143 PCT.US.ST25.txt

ttctgttcca	tgtctttgga	caaccatgac	cttggacaat	catgaaatat	gcatctcact	5280
ggatgcaaag	aaaatcagat	ggagcatgaa	tggtactgta	ccggttcac	tggaactgcc	5340
cagaaaaata	acttcaagca	aacatcctat	caacaacaag	gttgttctgc	ataccaagct	5400
gagcacagaa	gatgggaaca	ctggtggagg	atggaaaggc	tcgctcaatc	aagaaaattc	5460
tgagactatt	aataaataag	actgtagtgt	agatactgag	taaatccatg	cacctaacc	5520
ttttggaaaa	tctgccgtgg	gccctccaga	tagctcattt	cattaagttt	ttccctccaa	5580
ggtagaattt	gcaagagtga	cagtggattg	catttctttt	ggggaagctt	tcttttggtg	5640
gttttgttta	ttataccttc	ttaagttttc	aaccaagggt	tgcttttggt	ttgagttact	5700
ggggttattt	ttgttttaaa	taaaaataag	tgtacaataa	gtgtttttgt	attgaaagct	5760
tttgttatca	agattttcat	acttttacct	tccatggctc	tttttaagat	tgatactttt	5820
aagagggtggc	tgatattctg	caacactgta	cacataaaaa	atacggttaag	gatactttac	5880
atggttaagg	taaagtaagt	ctccagttgg	ccaccattag	ctataatggc	actttgtttg	5940
tgttgttggg	aaaagtcaca	ttgccattaa	actttccttg	tctgtctagt	taatattgtg	6000
aagaaaaata	aagtacagtg	tgagatactg				6030

<210> 5
 <211> 2974
 <212> DNA
 <213> Human

<400> 5	
ctcagggcag	agggaggaag gacagcagac cagacagtca cagcagcctt gacaaaacgt 60
tcctggaact	caagctcttc tccacagagg aggacagagc agacagcaga gaccatggag 120
tctccctcgg	cccctcccca cagatgggtgc atcccctggc agaggctcct gctcacagcc 180
tcacttctaa	ccttctggaa cccgcccacc actgccaaagc tcactattga atccacgccg 240
ttcaatgtcg	cagaggggaa ggagggtgctt ctacttgtcc acaatctgcc ccagcatctt 300
tttggctaca	gctgggtacaa aggtgaaaga gtggatggca accgtcaaata tataggatat 360
gtaataggaa	ctcaacaagc taccacaggg cccgcataca gtggtcgaga gataatatac 420
ccaatgcat	ccctgctgat ccagaacatc atccagaatg acacaggatt ctacacccta 480
cacgtcataa	agtcagatct tgtgaatgaa gaagcaactg gccagttccg ggtatacccg 540
gagctgcca	agccctccat ctccagcaac aactccaaac ccgtggagga caaggatgct 600
gtggccttca	cctgtgaacc tgagactcag gacgcaacct acctgtggtg ggtaaacaat 660
cagagcctcc	cggtcagtcc caggctgcag ctgtccaatg gcaacaggac cctcactcta 720
ttcaatgtca	caagaaatga cacagcaagc taaaaatgtg aaaccacagaa cccagtgaagt 780
gccaggcgca	gtgattcagt catcctgaat gtcctctatg gcccggatgc cccaccatt 840

IMMC 143 PCT.US.ST25.txt

tccccctctaa	acacatctta	cagatcaggg	gaaaatctga	acctctcctg	ccacgcagcc	900
tctaaccac	ctgcacagta	ctcttggttt	gtcaatggga	ctttccagca	atccacccaa	960
gagctcttta	tccccaacat	cactgtgaat	aatagtggat	cctatacgtg	ccaagcccat	1020
aactcagaca	ctggcctcaa	taggaccaca	gtcacgacga	tcacagtcta	tgcagagcca	1080
cccaaaccct	tcatcaccag	caacaactcc	aaccccgtagg	aggatgagga	tgctgtagcc	1140
ttaacctgtg	aacctgagat	tcagaacaca	acctacctgt	ggtagggtaaa	taatcagagc	1200
ctcccggtca	gtcccaggct	gcagctgtcc	aatgacaaca	ggaccctcac	tctactcagt	1260
gtcacaagga	atgatgtagg	accctatgag	tgtggaatcc	agaacgaatt	aagtgttgac	1320
cacagcgacc	cagtcctcct	gaatgtcctc	tatggcccag	acgaccccac	catttcccc	1380
tcatacacct	attaccgtcc	aggggtgaac	ctcagcctct	cctgccatgc	agcctctaac	1440
ccacctgcac	agtattcttg	gctgattgat	gggaacatcc	agcaacacac	acaagagctc	1500
tttatctcca	acatcactga	gaagaacagc	ggactctata	cctgccaggc	caataactca	1560
gccagtggcc	acagcaggac	tacagtcaag	acaatcacag	tctctgcgga	gctgccaag	1620
ccctccatct	ccagcaacaa	ctccaaaccc	gtggaggaca	aggatgctgt	ggccttcacc	1680
tgtgaacctg	aggctcagaa	cacaacctac	ctgtggtagg	taaatgggtca	gagcctccca	1740
gtcagtccca	ggctgcagct	gtccaatggc	aacaggaccc	tcactctatt	caatgtcaca	1800
agaaatgacg	caagagccta	tgtatgtgga	atccagaact	cagtgaagtgc	aaaccgcagt	1860
gaccagtcga	ccctggatgt	cctctatggg	ccggacaccc	ccatcatttc	ccccccagac	1920
tcgtcttacc	tttcgggagc	gaacctcaac	ctctcctgcc	actcggcctc	taacccatcc	1980
ccgcagtatt	cttggcgtat	caatgggata	ccgcagcaac	acacacaagt	tctctttatc	2040
gccaaaatca	cgccaaataa	taacgggacc	tatgcctgtt	ttgtctctaa	cttgggtact	2100
ggccgcaata	attccatagt	caagagcatc	acagtctctg	catctggaac	ttctcctggt	2160
ctctcagctg	gggccactgt	cggcatcatg	attggagtgc	tggttggggg	tgctctgata	2220
tagcagccct	gggtgtagtt	cttcatttca	ggaagactga	cagttgtttt	gcttcttcct	2280
taaagcattt	gcaacagcta	cagtctaaaa	ttgcttcttt	accaaggata	tttacagaaa	2340
agactctgac	cagagatcga	gaccatccta	gccaacatcg	tgaaacccca	tctctactaa	2400
aaatacaaaa	atgagctggg	cttgggtggcg	cgcacctgta	gtcccagtta	ctcgggaggc	2460
tgaggcagga	gaatcgcttg	aacccgggag	gtggagattg	cagtgaagccc	agatcgcacc	2520
actgcactcc	agtctggcaa	cagagcaaga	ctccatctca	aaaagaaaag	aaaagaagac	2580
tctgacctgt	actcttgaat	acaagtttct	gataccactg	cactgtctga	gaatttccaa	2640
aactttaatg	aactaactga	cagcttcatg	aaactgtcca	ccaagatcaa	gcagagaaaa	2700

IMMC 143 PCT.US.ST25.txt

taattaat	catgggacta	aatgaactaa	tgaggattgc	tgattcttta	aatgtcttgt	2760
ttcccagatt	tcaggaaact	ttttttcttt	taagctatcc	actcttacag	caatttgata	2820
aaatatactt	ttgtgaacaa	aaattgagac	atttacattt	tctccctatg	tggtcgctcc	2880
agacttgga	aactattcat	gaatatttat	attgtatggt	aatatagtta	ttgcacaagt	2940
tcaataaaaa	tctgctcttt	gtataacaga	aaaa			2974

<210> 6
 <211> 1977
 <212> DNA
 <213> Human

<400> 6						
cactccagtg	tggtcatcatg	tggtcagctgc	tcctcccaac	tgctctgcta	cttctagttt	60
cagctggcat	gcggactgaa	gatctcccaa	aggctgtggt	gttcctggag	cctcaatggt	120
acaggggtgct	cgagaaggac	agtgtgactc	tgaagtgccca	gggagcctac	tcccctgagg	180
acaattccac	acagtggttt	cacaatgaga	acctcatctc	aagccaggcc	tcgagctact	240
tcattgacgc	tgccacagtc	gacgacagtg	gagagtacag	gtgccagaca	aacctctcca	300
ccctcagtg	cccgggtgcag	ctagaagtcc	atgtcggctg	gctgttgctc	caggcccctc	360
ggtgggtggt	caaggaggaa	gaccctattc	acctgagggtg	tcacagctgg	aagaacactg	420
ctctgcataa	ggtcacatat	ttacagaatg	gcaaagacag	gaagtatttt	catcataatt	480
ctgacttcca	cattccaaaa	gccacactca	aagatagcgg	ctcctacttc	tgcagggggc	540
ttgttgggag	taaaaatgtg	tcttcagaga	ctgtgaacat	caccatcact	caaggtttgg	600
cagtgtcaac	catctcatca	ttctctccac	ctgggtacca	agtctctttc	tgcttgggtga	660
tggtactcct	ttttgcagtg	gacacaggac	tatatttctc	tgtgaagaca	aacatttgaa	720
gctcaacaag	agactggaag	gaccataaac	ttaaatggag	aaaggaccct	caagacaaat	780
gacccccatc	ccatgggagt	aataagagca	gtggcagcag	catctctgaa	catttctctg	840
gatttgcaac	cccatcatcc	tcaggcctct	ctacaagcag	caggaaacat	agaactcaga	900
gccagatcct	ttatccaact	ctcgattttt	ccttgggtctc	cagtggaagg	gaaaagccca	960
tgatcttcaa	gcagggaagc	cccagtgagt	agctgcattc	ctagaaattg	aagtttcaga	1020
gctacacaaa	cactttttct	gtcccaacca	ttccctcaca	gtaaaacaac	aatacagggt	1080
agggatggta	atccttttaa	catacaaaaa	ttgctcgat	tataaattac	ccagtttaga	1140
ggggaaaaaa	gaaaataatt	attcctaaac	aaatggataa	gtagaattaa	tgattgaggc	1200
aggaccctac	agagtgtggg	aactgctggg	gatctagaga	attcagtggg	accaatgaaa	1260
gcatggctga	gaaatagcag	ggtagtccag	gatagtctaa	gggagggtgt	cccattctgag	1320
cccagagata	agggtgtctt	cctagaacat	tagccgtagt	ggaattaaca	ggaaatcatg	1380

IMMC 143 PCT.US.ST25.txt

agggtgacgt	agaattgagt	cttccagggg	actctatcag	aactggacca	tttccaagta	1440
tataacgatg	agccctctaa	tgctaggagt	agcaaatggt	cctaggaagg	ggactgagga	1500
ttgggggtggg	ggtgggggtgg	aaaagaaagt	acagaacaaa	ccctgtgtca	ctgtcccaag	1560
ttaagctaag	tgaacagaac	tatctcagca	tcagaatgag	aatgagaaaag	cctgagaaga	1620
aagaaccaac	cacaagcaca	caggaaggaa	agcgcaggag	gtgaaaatgc	tttcttggcc	1680
agggtagtaa	gaattagagg	ttaatgcagg	gactgtaaaa	ccaccttttc	tgcttcaatg	1740
tctagttcct	gtatagcttt	gttcattgca	tttattaaac	aaatgttgta	taaccaatac	1800
taaatgtact	actgagcttc	actgagttac	gctgtgaaac	tttcaaatacc	ttcttcagtc	1860
agttccaatg	agggtggggat	ggagaagaca	attgttgctt	atgaaaaaaaa	gctttagctg	1920
tctcctgttt	tgtaagcttt	cagtgcaca	tttcttggtt	ccaataaagc	attttac	1977

<210> 7
 <211> 3189
 <212> DNA
 <213> Human

<400> 7	
tttccagcca	60
tggtgcat	
tacctgacca	
gcgccacagc	
cggtctctct	
gcaggcgccg	
ggagaagtga	120
ccagagcaat	
ttctgctttt	
cacagggcgg	
gtttctcaac	
ggtgacttgt	
gggcagtgcc	180
ttctgctgag	
cgagtcattg	
cccgaaggca	
gaactaactg	
tgccctgcagt	
cttcactctc	240
aggatgcagc	
cgagggtggg	
ccaagggggc	
acgatgtggc	
ttggagtcct	
gctgaccctt	300
ctgctctgtt	
caagccttga	
gggtcaagaa	
aactctttca	
caatcaacag	
tggtgacatg	360
aagagcctgc	
cggactggac	
ggtgcaaaat	
gggaagaacc	
tgaccctgca	
gtgcttcgcg	420
gatgtcagca	
ccacctctca	
cgtcaagcct	
cagcaccaga	
tgctgttcta	
taaggatgac	480
gtgctgtttt	
acaacatctc	
ctccatgaag	
agcacagaga	
gttattttat	
tcctgaagtc	540
cggatctatg	
actcagggac	
atataaatgt	
actgtgattg	
tgaacaacaa	
agagaaaacc	600
actgcagagt	
accagggtgt	
ggtggaagga	
gtgcccagtc	
ccagggtgac	
actggacaag	660
aaagaggcca	
tccaagggtg	
gatcgtgagg	
gtcaactgtt	
ctgtcccaga	
ggaaaaggcc	720
ccaatacact	
tcacaattga	
aaaacttgaa	
ctaaatgaaa	
aaatggtcaa	
gctgaaaaga	780
gagaagaatt	
ctcgagacca	
gaattttgtg	
atactggaat	
tccccgttga	
ggaacaggac	840
cgcgttttat	
ccttccgatg	
tcaagctagg	
atcatttctg	
ggatccatat	
gcagacctca	900
gaatctacca	
agagtgaact	
ggtcaccgtg	
acggaatcct	
tctctacacc	
caagttccac	960
atcagcccca	
ccggaatgat	
catggaagga	
gctcagctcc	
acattaagtg	
caccattcaa	1020
gtgactcacc	
tggcccagga	
gtttccagaa	
atcataattc	
agaaggacaa	
ggcgattgtg	1080
gcccacaaca	
gacatggcaa	
caaggctgtg	
tactcagtca	
tggccatggt	

ggagcacagt	ggcaactaca	cggtgcaaaagt	ggagtccagc	cgcatatcca	aggtcagcag	1140
catcgtgggtc	aacataacag	aactatttttc	caagccccgaa	ctggaatctt	ccttcacaca	1200
tctggaccaa	ggtgaaagac	tgaacctgtc	ctgctccatc	ccaggagcac	ctccagccaa	1260
cttcaccatc	cagaaggaag	atacgattgt	gtcacagact	caagatttca	ccaagatagc	1320
ctcaaagtcg	gacagtggga	cgtatatctg	cactgcaggt	attgacaaaag	tggatcaagaa	1380
aagcaacaca	gtccagatag	tcgtatgtga	aatgctctcc	cagcccagga	tttcttatga	1440
tgcccagttt	gaggtcataa	aaggacagac	catcgaagtc	cgttgcgaat	cgatcagtg	1500
aactttgcct	atttcttacc	aactttttaa	aacaagtaaa	gttttggaga	atagtaccaa	1560
gaactcaa	gatcctgcgg	tattcaaaga	caacccccact	gaagacgtcg	aataccagtg	1620
tgttgcagat	aattgccatt	cccacgcca	aatgttaagt	gaggttctga	gggtgaaggt	1680
gatagccccg	gtggatgagg	tccagatttc	tatcctgtca	agtaagggtg	tggagtctgg	1740
agaggacatt	gtgctgcaat	gtgctgtgaa	tgaaggatct	ggtcccatca	cctataagtt	1800
ttacagagaa	aaagagggca	aacccttcta	tcaaatgacc	tcaaatgcca	cccaggcatt	1860
ttggaccaag	cagaaggcta	acaaggaaca	ggagggagag	tattactgca	cagccttcaa	1920
cagagccaac	cacgcctcca	gtgtccccag	aagcaaaaata	ctgacagtca	gagtcattct	1980
tgccccatgg	aagaaaggac	ttattgcagt	ggttatcatc	ggagtgatca	ttgctctctt	2040
gatcattg	gccaaatgtt	attttctgag	gaaagccaag	gccaagcaga	tgccagtgg	2100
aatgtccagg	ccagcagtac	cacttctgaa	ctccaacaac	gagaaaatgt	cagatcccaa	2160
tatggaagct	aacagtcatt	acggtcacaa	tgacgatgtc	ggaaaccatg	caatgaaacc	2220
aataaatgat	aataaagagc	ctctgaactc	agacgtgcag	tacacggaag	ttcaagtgtc	2280
ctcagctgag	tctcacaaaag	atctaggaaa	gaaggacaca	gagacagtgt	acagtgaagt	2340
ccggaaaagct	gtccctgatg	ccgtggaaaag	cagatactct	agaacggaag	gctcccttga	2400
tggaacttag	acagcaaggc	cagatgcaca	tccctggaag	gacatccatg	ttccgagaag	2460
aacagatgat	ccctgtat	caagacctct	gtgcacttat	ttatgaacct	gccctgctcc	2520
cacagaacac	agcaattcct	caggctaagc	tgccggttct	taaatccatc	ctgctaagtt	2580
aatgttgggt	agaaagagat	acagaggggc	tgttgaattt	cccacataca	ctccttcac	2640
caagttggaa	catccttgg	aattggaaga	gcacaagagg	agatccaggg	caaggccatt	2700
gggatattct	gaaacttgaa	tattttgttt	tgtgcagaga	taaagacctt	ttccatgcac	2760
cctcatacac	agaaaccaat	tttctttttt	atactcaatc	atttctagcg	catggcctgg	2820
ttagaggctg	gttttttctc	ttttcctttg	gtccttcaaa	ggctttagt	tttgggtagt	2880
ccttgttctt	tggaaataca	cagtgtgtgac	cagacagcct	ccccctgtcc	cctctatgac	2940
ctcgccctcc	acaaatggga	aaaccagact	acttggggagc	accgcctgtg	aaataccaac	3000

IMMC 143 PCT.US.ST25.txt

ctgaagacac ggttcattca ggcaacgcac aaaacagaaa atgaagggtg aacaagcaca	3060
gatgttcttc aactgttttt gtctacactc tttctctttt cctctacat gctgaaggct	3120
gaaagacagg aagatgggtgc catcagcaaa tattattctt aattgaaaac ttgaaaaaaa	3180
aaaaaaaa	3189

<210> 8
 <211> 1494
 <212> DNA
 <213> Human

<400> 8	
agtgaacag aaggggaggt gcagtttcag aacccagcca gcctctctct tgctgcctag	60
cctcctgccg gcctcatctt cgcccagcca accccgcctg gagccctatg gccaactgcg	120
agttcagccc ggtgtccggg gacaaaccct gctgccggct ctctaggaga gccaactct	180
gtcttgccgt cagtatcctg gtccctgatcc tcgtcgtggt gctcgcggtg gtcgtcccga	240
ggtggcgcca gcagtggagc ggtccgggca ccaccaagcg ctttcccag accgtcctgg	300
cgcgatgcgt caagtacact gaaattcatc ctgagatgag acatgtagac tgccaaagt	360
tatgggatgc tttcaagggg gcatttattt caaaacatcc ttgcaacatt actgaagaag	420
actatcagcc actaatgaag ttgggaactc agaccgtacc ttgcaacaag attcttcttt	480
ggagcagaat aaaagatctg gcccatcagt tcacacaggt ccagcgggac atgttcaccc	540
tggaggacac gctgctaggc taccttgctg atgacctcac atggtgtggt gaattcaaca	600
cttccaaaat aaactatcaa tcttgcccag actggagaaa ggactgcagc aacaaccctg	660
tttcagtatt ctggaaaacg gtttcccga ggtttgcaga agctgcctgt gatgtggtcc	720
atgtgatgct caatggatcc cgcagtaaaa tctttgacaa aaacagcact tttgggagtg	780
tggaagtcca taatttgcaa ccagagaagg ttcagacact agaggcctgg gtgatacatg	840
gtggaagaga agattccaga gacttatgcc aggatccac cataaaagag ctggaatcga	900
ttataagcaa aaggaatatt caattttcct gcaagaatat ctacagacct gacaagtttc	960
ttcagtgtgt gaaaaatcct gaggattcat cttgcacatc tgagatctga gccagtcgct	1020
gtggttgttt tagctccttg actccttggt gtttatgtca tcatacatga ctcagcatac	1080
ctgctgggtgc agagctgaag attttgagg gtccctccaca ataaggtaaa tgccagagac	1140
ggaagccttt tccccaaaag tcttaaaata acttatatca tcagcatacc tttattgtga	1200
tctatcaata gtcaagaaaa attattgtat aagattagaa tgaaaattgt atgttaagtt	1260
acttcacttt aattctcatg tgatcctttt atgttattta tatattggta acatcctttc	1320
tattgaaaaa tcaccacacc aaacctctct tattagaaca ggcaagtga gaaaagtga	1380
tgctcaagtt tttcagaaag cattacattt ccaaatgaat gaccttggtg catgatgtat	1440

ttttgtaccc ttcttacaga tagtcaaacc ataaacttca tgggtcatggg taaa 1494

<210> 9
 <211> 5026
 <212> DNA
 <213> Human

<400> 9
 agaggaggaa attgttcctc gtctgataag acaacagtgg agaaaggacg catgctgttt 60
 cttagggaca cggctgactt ccagatatga ccatgtattt gtggcttaaa ctcttggcat 120
 ttggctttgc ctttctggac acagaagtat ttgtgacagg gcaaagccca acaccttccc 180
 ccactggatt gactacagca aagatgcccc gtgttccact ttcaagtgac cccttaccta 240
 ctcacaccac tgcattctca cccgcaagca cttttgaaag agaaaatgac ttctcagaga 300
 ccacaacttc tcttagtcca gacaatactt ccaccaagt atccccggac tctttggata 360
 atgctagtgc ttttaatacc acaggtgttt catcagtaca gacgcctcac cttcccacgc 420
 acgcagactc gcagacgccc tctgctggaa ctgacacgca gacattcagc ggctccgccc 480
 ccaatgcaaa actcaaccct accccaggca gcaatgctat ctcatatgtc ccaggagaga 540
 ggagtacagc cagcaccttt cctacagacc cagtttcccc attgacaacc accctcagcc 600
 ttgcacacca cagctctgct gccttacctg cacgcacctc caacaccacc atcacagcga 660
 acacctcaga tgcctacctt aatgcctctg aaacaaccac tctgagccct tctggaagcg 720
 ctgtcatttc aaccacaaca atagctacta ctccatctaa gccaacatgt gatgaaaaat 780
 atgcaaacat cactgtggat tacttatata acaaggaaac taaattattt acagcaaagc 840
 taaatgttaa tgagaatgtg gaatgtggaa acaatacttg cacaacaat gaggtgcata 900
 acctacaga atgtaaaaat gcgtctgttt ccatatctca taattcatgt actgctcctg 960
 ataagacatt aatattagat gtgccaccag gggttgaaaa gtttcagtta catgattgta 1020
 cacaagttga aaaagcagat actactatth gtttaaaatg gaaaaatatt gaaaccttta 1080
 cttgtgatac acagaatatt acctacagat ttcagtgtgg taatatgata tttgataata 1140
 aagaaattaa attagaaaac cttgaacccg aacatgagta taagtgtgac tcagaaaatac 1200
 tctataataa ccacaagttt actaacgcaa gtaaaattat taaaacagat tttgggagtc 1260
 caggagagcc tcagattatt tttttagtaa gtgaagctgc acatcaagga gtaattacct 1320
 ggaatcccc tcaaagatca tttcataatt ttaccctctg ttatataaaa gagacagaaa 1380
 aagattgcct caatctggat aaaaacctga tcaaatatga tttgcaaaat ttaaaacctt 1440
 atacgaaata tgttttatca ttacatgcct acatcattgc aaaagtgcaa cgtaatggaa 1500
 gtgctgcaat gtgtcatttc acaactaaaa gtgctcctcc aagccagggtc tggaacatga 1560
 ctgtctccat gacatcagat aatagtatgc atgtcaagtg taggcctccc agggaccgta 1620

IMMC 143 PCT.US.ST25.txt

atggccccc	tgaacgttac	catttggaag	ttgaagctgg	aaatactctg	gtagaaatg	1680
agtcgcataa	gaattgcat	ttccgtgtaa	aagatcttca	atattcaaca	gactacactt	1740
ttaaggccta	ttttcacaat	ggagactatc	ctggagaacc	ctttatttta	catcattcaa	1800
catcttataa	ttctaaggca	ctgatagcat	ttctggcatt	tctgattatt	gtgacatcaa	1860
tagccctgct	tgttgttctc	tacaaaatct	atgatctaca	taagaaaaga	tcctgcaatt	1920
tagatgaaca	gcaggagctt	gttgaaaggg	atgatgaaaa	acaactgatg	aatgtggagc	1980
caatccatgc	agatattttg	ttggaaaactt	ataagaggaa	gattgctgat	gaaggaagac	2040
tttttctggc	tgaatttcag	agcatccccg	gggtgttcag	caagtttcct	ataaaggaag	2100
ctcgaaagcc	ctttaaccag	aataaaaacc	gttatgttga	cattcttcct	tatgattata	2160
accgtgttga	actctctgag	ataaacggag	atgcaggggtc	aaactacata	aatgccagct	2220
atattgatgg	tttcaaagaa	cccaggaaat	acattgctgc	acaagggtccc	agggatgaaa	2280
ctgttgatga	tttctggagg	atgatttggg	aacagaaagc	cacagttatt	gtcatggtca	2340
ctcgatgtga	agaaggaaac	aggaacaagt	gtgcagaata	ctggccgtca	atggaagagg	2400
gcactcgggc	ttttggagat	gttgttgtaa	agatcaacca	gcacaaaaga	tgtccagatt	2460
acatcattca	gaaattgaac	attgtaaata	aaaaagaaaa	agcaactgga	agagagggtga	2520
ctcacattca	gttcaccagc	tggccagacc	acgggggtgcc	tgaggatcct	cacttgctcc	2580
tcaaactgag	aaggagagtg	aatgccttca	gcaatttctt	cagtgggtccc	attgtggtgc	2640
actgcagtgc	tgggtgttggg	cgcacaggaa	cctatatcgg	aattgatgcc	atgctagaag	2700
gcctggaagc	cgagaacaaa	gtggatgttt	atggttatgt	tgtcaagcta	aggcgacaga	2760
gatgcctgat	ggttcaagta	gaggcccagt	acatcttgat	ccatcaggct	ttggtggaat	2820
acaatcagtt	tggagaaaca	gaagtgaatt	tgtctgaatt	acatccatat	ctacataaca	2880
tgaagaaaag	ggatccaccc	agtgaagcgt	ctccactaga	ggctgaattc	cagagacttc	2940
cttcatatag	gagctggagg	acacagcaca	ttggaaatca	agaagaaaat	aaaagtaaaa	3000
acaggaattc	taatgtcatc	ccatatgact	ataacagagt	gccacttaaa	catgagctgg	3060
aaatgagtaa	agagagtga	catgattcag	atgaatcctc	tgatgatgac	agtgattcag	3120
aggaaccaag	caaatacatc	aatgcatctt	ttataatgag	ctactggaaa	cctgaagtga	3180
tgattgctgc	tcagggacca	ctgaaggaga	ccattggtga	cttttggcag	atgatcttcc	3240
aaagaaaagt	caaagttatt	gttatgctga	cagaactgaa	acatggagac	caggaaatct	3300
gtgctcagta	ctggggagaa	ggaaagcaaa	catatggaga	tattgaagtt	gacctgaaag	3360
acacagacaa	atcttcaact	tatacccttc	gtgtctttga	actgagacat	tccaagagga	3420
aagactctcg	aactgtgtac	cagtaccaat	atacaactg	gagtgtggag	cagcttcctg	3480

IMMC 143 PCT.US.ST25.txt

cagaacccaa ggaattaatc tctatgattc aggtcgtcaa acaaaaaactt ccccagaaga 3540
 attcctctga agggaacaag catcacaaga gtacacctct actcattcac tgcagggatg 3600
 gatctcagca aacgggaata ttttgtgctt tgttaaatct cttagaaaagt gcggaaacag 3660
 aagaggtagt ggatattttt caagtggtaa aagctctacg caaagctagg ccaggcatgg 3720
 tttccacatt cgagcaatat caattcctat atgacgtcat tgccagcacc taccctgctc 3780
 agaatggaca agtaaagaaa aacaaccatc aagaagataa aattgaattt gataatgaag 3840
 tggacaaaagt aaagcaggat gctaattgtg ttaatccact tgggtgcccc aaaaagctcc 3900
 ctgaagcaaa ggaacaggct gaaggttctg aaccacgag tggcactgag gggccagaac 3960
 attctgtcaa tggtcctgca agtccagctt taaatcaagg ttcataggaa aagacataaa 4020
 tgaggaaaact ccaaacctcc tgtagctgt tatttctatt tttgtagaag taggaagtga 4080
 aaataggtagt acagtggatt aattaaatgc agcgaaccaa ttttgtaga agggttatat 4140
 tttactactg tggaaaaata tttaagatag ttttgccaga acagtttgta cagacgtatg 4200
 cttattttta aattttatct cttattcagt aaaaaacaac ttctttgtaa tcgttatgtg 4260
 tgtatatgta tgtgtgtatg ggtgtgtgtt tgtgtgagag acagagaaaag agagagaatt 4320
 ctttcaagt aatctaaaag cttttgcttt tcctttgttt ttatgaagaa aaaatacatt 4380
 ttatattaga agtggttaact tagcttgaag gatctgtttt taaaaatcat aaactgtgtg 4440
 cagactcaat aaaatcatgt acatttctga aatgacctca agatgtcctc cttgttctac 4500
 tcatatatat ctatcttata tacttactat tttacttcta gagatagtac ataaagggtg 4560
 tatgtgtgtg tatgtacta caaaaaagtt gttaactaaa ttaacattgg gaaatcttat 4620
 attccatata ttagcattta gtccaatgtc tttttaagct tatttaatta aaaaatttcc 4680
 agtgagctta tcatgctgtc tttacatggg gttttcaatt ttgcatgctc gattattccc 4740
 tgtacaatat ttaaaattta ttgcttgata cttttgacaa caaattaggt tttgtacaat 4800
 tgaacttaaa taaatgtcat taaaataaat aaatgcaata tgtattaata ttcattgtat 4860
 aaaaatagaa gaatacaaac atatttgta aatatttaca tatgaaattt aatatagcta 4920
 tttttatgga atttttcatt gatatgaaaa atatgatatt gcatatgcat agttcccatg 4980
 ttaaattcca ttcataactt tcattaaagc atttactttg aatttc 5026

<210> 10
 <211> 2301
 <212> DNA
 <213> Human

<400> 10
 tcgacagctc tctcgcccag cccagttctg gaagggataa aaagggggca tcaccgttcc 60
 tgggtaacag agccaccttc tgcgtcctgc tgagctctgt tctctccagc acctcccaac 120

ccactagtgc	ctggttctct	tgctccacca	ggaacaagcc	accatgtctc	gccagtcaag	180
tgtgtccttc	cggagcgggg	gcagtcgtag	cttcagcacc	gcctctgcca	tcaccccgtc	240
tgtctcccg	accagcttca	cctccgtgtc	ccggtccggg	ggtggcgggtg	gtggtggctt	300
cggcaggggtc	agccttgccg	gtgcttgtgg	agtgggtggc	tatggcagcc	ggagcctcta	360
caacctgggg	ggctccaaga	ggatatccat	cagcactaga	ggaggcagct	tcaggaaccg	420
gtttggtgct	ggtgctggag	gcggctatgg	ctttggagggt	ggtgccggta	gtggatttgg	480
tttcggcgggt	ggagctgggtg	gtggcttttg	gctcgggtggc	ggagctggct	ttggagggtg	540
cttcgggtggc	cctggctttc	ctgtctgccc	tcctggagggt	atccaagagg	tcactgtcaa	600
ccagagtctc	ctgactcccc	tcaacctgca	aatcgacccc	agcatccaga	gggtgaggac	660
cgaggagcgc	gagcagatca	agacctcaa	caataagttt	gcctccttca	tcgacaaggt	720
gcggttcctg	gagcagcaga	acaaggttct	ggacaccaag	tggaccctgc	tgcaggagca	780
gggcaccaag	actgtgaggc	agaacctgga	gccgttgttc	gagcagtaca	tcaacaacct	840
caggaggcag	ctggacagca	tcgtggggga	acggggccgc	ctggactcag	agctgagaaa	900
catgcaggac	ctggtggaag	acttcaagaa	caagtatgag	gatgaaatca	acaagcgtac	960
cactgctgag	aatgagtttg	tgatgctgaa	gaaggatgta	gatgctgcct	acatgaacaa	1020
ggtggagctg	gaggccaagg	ttgatgcact	gatggatgag	attaacttca	tgaagatgtt	1080
ctttgatgcg	gagctgtccc	agatgcagac	gcatgtctct	gacacctcag	tggtcctctc	1140
catggacaac	aaccgcaacc	tggacctgga	tagcatcatc	gctgagggtca	aggcccagta	1200
tgaggagatt	gccaaccgca	gccggacaga	agccgagtcc	tggtatcaga	ccaagtatga	1260
ggagctgcag	cagacagctg	gccggcatgg	cgatgacctc	cgcaacacca	agcatgagat	1320
cacagagatg	aaccggatga	tccagaggct	gagagccgag	attgacaatg	tcaagaaaca	1380
gtgcgccaat	ctgcagaacg	ccattgcgga	tgccgagcag	cgtggggagc	tggccctcaa	1440
ggatgccagg	aacaagctgg	ccgagctgga	ggaggccctg	cagaaggcca	agcaggacat	1500
ggcccggctg	ctgcgtgagt	accaggagct	catgaacacc	aagctggccc	tggacgtgga	1560
gatcgccact	taccgcaagc	tgctggaggg	cgagggaatgc	agactcagtg	gagaaggagt	1620
tggaccagtc	aacatctctg	ttgtcacaag	cagtgtttcc	tctggatatg	gcagtggcag	1680
tggctatggc	ggtggcctcg	gtggagggtct	tggcggcggc	ctcgggtggag	gtcttgccgg	1740
aggtagcagt	ggaagctact	actccagcag	cagtgggggt	gtcggcctag	gtggtgggct	1800
cagtgtgggg	ggctctggct	tcagtgcaag	cagtggccga	gggctggggg	tgggctttgg	1860
cagtggcggg	ggtagcagct	ccagcgtcaa	atttgtctcc	accacctcct	cctcccgga	1920
gagcttcaag	agctaagaac	ctgctgcaag	tcactgcctt	ccaagtgcag	caaccagcc	1980
catggagatt	gcctcttcta	ggcagttgct	caagccatgt	tttatccttt	tctggagagt	2040

IMMC 143 PCT.US.ST25.txt

agtctagacc aagccaattg cagaaccaca ttcttttggt cccaggagag ccccatcccc	2100
agccccctggt ctccccgtgcc gcagttctat attctgcttc aaatcagcct tcaggtttcc	2160
cacagcatgg cccctgctga cacgagaacc caaagttttc ccaaatactaa atcatcaaaa	2220
cagaatcccc accccaatcc caaattttgt tttggttcta actacctcca gaatgtgttc	2280
aataaaatgc ttttataata t	2301

<210> 11
 <211> 1752
 <212> DNA
 <213> Human

<400> 11	
ctgctccttc taggatctcc gcctgggtcg gccgcctgc ctccactcct gcctccacca	60
tgtccatcag ggtgaccag aagtcctaca aggtgtccac ctctggcccc cgggccttca	120
gcagccgctc ctacacgagt gggccccggt cccgcacag ctctctcgagc ttctccccgag	180
tgggcagcag caactttcgc ggtggcctgg gcggcggcta tgggtggggcc agcggcatgg	240
gaggcatcac cgagttacg gtcaaccaga gcctgctgag ccccttgtc ctggagggtg	300
acccaacat ccaggccgtg cgcaccagg agaaggagca gatcaagacc ctcaacaaca	360
agtttgctc cttcatagac aaggtacggt tcctggagca gcagaacaag atgctggaga	420
ccaagtggag cctcctgcag cagcagaaga cggctcgaag caacatggac aacatgttcg	480
agagctacat caacaacctt aggcggcagc tggagactct gggccaggag aagctgaagc	540
tggaggcgga gcttggcaac atgcaggggc tggaggagga cttcaagaac aagtatgagg	600
atgagatcaa taagcgtaca gagatggaga acgaatttgt cctcatcaag aaggatgtg	660
atgaagctta catgaacaag gtagagctgg agtctcgctt ggaagggtg accgacgaga	720
tcaacttcct caggcagcta tatgaagagg agatccggga gctgcagtcc cagatctcgg	780
acacatctgt ggtgctgtcc atggacaaca gccgctccct ggacatggac agcatcattg	840
ctgagggtcaa ggcacagtac gaggatattg ccaaccgcag ccgggctgag gctgagagca	900
tgtaccagat caagtatgag gagctgcaga gcctggctgg gaagcacggg gatgacctgc	960
ggcgcaaaa gactgagatc tctgagatga accggaacat cagccggctc caggctgaga	1020
ttgagggcct caaaggccag agggcttccc tggaggccgc cattgcagat gccgagcagc	1080
gtggagagct ggccattaag gatgccaacg ccaagttgtc cgagctggag gccgccctgc	1140
agcgggcaa gcaggacatg gcgcggcagc tgcgtgagta ccaggagctg atgaacgtca	1200
agctggccct ggacatcgag atcgccacct acaggaagct gctggagggc gaggagagcc	1260
ggctggagtc tgggatgcag aacatgagta ttcatacgaa gaccaccagc ggctatgcag	1320
gtggtctgag ctcggcctat gggggcctca caagccccgg cctcagctac agcctgggct	1380

IMMC 143 PCT.US.ST25.txt

ccagcttttg	ctctggcgcg	ggctccagct	ccttcagccg	caccagctcc	tccagggccg	1440
tggttggtgaa	gaagatcgag	acacgtgatg	ggaagctggt	gtctgagtcc	tctgacgtcc	1500
tgcccaagt	aacagctg	gcagccccctc	ccagcctacc	cctcctg	tgccccagag	1560
cctgggaagg	aggccgctat	gcagggtagc	actgggaaca	ggagaccac	ctgaggctca	1620
gccctagccc	tcagcccacc	tggggagttt	actacctggg	gacccccctt	gcccattgcct	1680
ccagctacaa	aacaattcaa	ttgctttttt	tttttggtcc	aaaataaaac	ctcagctagc	1740
tctgccaaac	cc					1752

<210> 12
 <211> 2145
 <212> DNA
 <213> Human

<400> 12						
cagcatcacc	atgtctgttc	gatacagctc	aagcaagcac	tactcttcct	cccgcagtgg	60
aggaggagga	ggaggaggag	gatgtggagg	aggaggagga	gtgtcatccc	taagaatttc	120
tagcagcaaa	ggctcccttg	gtggaggatt	tagctcaggg	gggttcagt	gtggctcttt	180
tagccgtggg	agctctggtg	ggggctgctt	tgggggctca	tcagggtggct	atggaggatt	240
aggaggtttt	ggtggaggta	gctttcgtgg	aagctatgga	agtagcagct	ttggtgggag	300
ttatggaggc	agctttggag	ggggcagttt	cggagggtggc	agctttggtg	ggggcagctt	360
tggtggaggc	ggctttggtg	gaggcggtt	tggaggaggc	tttgggtggtg	gatttggagg	420
agatggtggc	cttctctctg	gaaatgaaaa	agtaaccatg	cagaatctga	atgaccgcct	480
ggcttcctac	ttggacaaag	ttcgggctct	ggaagaatca	aactatgagc	tggaaggcaa	540
aatcaaggag	tggtatgaaa	agcatggcaa	ctcacatcag	ggggagcctc	gtgactacag	600
caaatactac	aaaaccatcg	atgaccttaa	aaatcagatt	ctcaacctaa	caactgataa	660
tgccaacatc	ctgcttcaga	tcgacaatgc	caggctggca	gctgatgact	tcaggctgaa	720
gtatgagaat	gaggtagctc	tgcgccagag	cggtggaggct	gacatcaacg	gcctgcgtag	780
ggtgctggat	gagctgaccc	tgaccaaggc	tgacctggag	atgcaaattg	agagcctgac	840
tgaagagctg	gcctatctga	agaagaacca	cgaggaggaa	atgaaagacc	ttcgaaatgt	900
gtccactggg	gatgtgaatg	tggaaatgaa	tgtgccccg	ggtgttgatc	tgactcaact	960
tctgaataac	atgagaagcc	aatatgaaca	acttgctgaa	caaaaccgca	aagatgctga	1020
agcctgggtc	aatgaaaaga	gcaaggaaact	gactacagaa	attgataata	acattgaaca	1080
gatatccagc	tataaatctg	agattactga	attgagacgt	aatgtacaag	ctctggagat	1140
agaactacag	tcccaactgg	ccttgaaaca	atccctggaa	gcctccttgg	cagaaacaga	1200
aggtcgctac	tgtgtgcagc	tctcacagat	tcaggcccag	atatccgctc	tggaagaaca	1260

IMMC 143 PCT.US.ST25.txt

gttgcaacag attcgagctg aaaccgagtg ccagaatact gaataccaac aactcctgga	1320
tattaagatc cgactggaga atgaaattca aacctaccgc agcctgctag aaggagaggg	1380
aagttccgga ggcggcggac gcggcggcgg aagtttcggc ggcggtctac gcggcgggaag	1440
ctccggcggc ggaagctccg gcggcggccta cggcggcggc cacggcggca gttccggcgg	1500
cggctacgga ggcggaagct ccggcggcgg aagctccggc ggcggtctac ggggcgggaag	1560
ctccagcggc ggccacggcg gcagttccag cggcggctac ggtggtggca gttccggcgg	1620
cggcggcggc ggctacgggg gcggcagctc cggcggcggc agcagctccg gcggcggata	1680
cggcggcggc agctccagcg gagggcacia gtcctcctct tccgggtccg tgggcgagtc	1740
ttcatctaag ggaccaagat actaacaaaa ccagagtaat caagacaatt attgaagagg	1800
tggcgccga cggtagagtt ctttcatcta tgggtgaatc agaaaccaag aaacactact	1860
attaaactgc atcaagagga aagagtctcc cttcacacag accattatit acagatgcat	1920
ggaaaacaaa gtctccaaga aaacacttct gtcttgatgg tctatggaaa tagaccttga	1980
aaataagggtg tctacaagggt gttttgtggt ttctgtatit cttcttttca ctttaccaga	2040
aagtgttctt taatggaaaag aaaaacaact ttctgttctc atttactaat gaatttcaat	2100
aaactttctt actgatgcaa actaaaaaaaa aaaaaaaaaa aaaaa	2145

<210> 13
 <211> 1485
 <212> DNA
 <213> Human

<400> 13	
tccggggcgg gggcggggcc tcaactctgcg atataactcg ggtcgcgcgg ctcgcgcagg	60
ccgccaccgt cgtccgcaaa gcctgagtc tgtcctttct ctctccccgg acagcatgag	120
cttcaccact cgctccacct tctccacca ctaccggtcc ctgggctctg tccaggcgcc	180
cagctacggc gcccgggcgg tcagcagcgc ggccagcgtc tatgcaggcg ctgggggctc	240
tggttcccgg atctccgtgt cccgctccac cagcttcagg ggcgcatgg ggtccggggg	300
cctggccacc gggatagccg ggggtctggc aggaatggga ggcattccaga acgagaagga	360
gaccatgcaa agcctgaacg accgcctggc ctcttacctg gacagagtga ggagcctgga	420
gaccgagaac cggaggctgg agagcaaaat ccgggagcac ttggagaaga agggacccca	480
ggtcagagac tggagccatt acttcaagat catcgaggac ctgagggctc agatcttcgc	540
aaataactgtg gacaatgccc gcatcgttct gcagattgac aatgcccgtc ttgctgctga	600
tgactttaga gtcaagtatg agacagagct ggccatgcgc cagtctgtgg agaacgacat	660
ccatgggctc cgcaagggtca ttgatgacac caatatcaca cgactgcagc tggagacaga	720
gatcgaggct ctcaaggagg agctgctctt catgaagaag aaccacgaag aggaagtaaa	780

IMMC 143 PCT.US.ST25.txt

aggcctacaa gcccagattg ccagctctgg gttgaccgtg gaggtagatg cccccaaatc	840
tcaggacctc gccaagatca tggcagacat ccgggcccac tatgacgagc tggctcggaa	900
gaaccgagag gagctagaca agtactggtc tcagcagatt gaggagagca ccacagtggg	960
caccacacag tctgctgagg ttggagctgc tgagacgacg ctcacagagc tgagacgtac	1020
agtccagtcc ttggagatcg acctggactc catgagaaat ctgaaggcca gcttggagaa	1080
cagcctgagg gaggtggagg cccgctacgc cctacagatg gagcagctca acgggatcct	1140
gctgcacctt gagtacagagc tggcacagac ccgggcagag ggacagcgcc agggccagga	1200
gtatgaggcc ctgctgaaca tcaagggtcaa gctggagggt gagatcgcca cctaccgccg	1260
cctgctggaa gatggcgagg actttaatct tggatgagcc ttggacagca gcaactccat	1320
gcaaaccatc caaaagacca ccacccgccg gatagtggat ggcaaagtgg tgtctgagac	1380
caatgacacc aaagtcttga ggcattaagc cagcagaagc aggggtaccct ttggggagca	1440
ggaggccaat aaaaagttca gaggtaaaaa aaaaaaaaaa aaaaa	1485

<210> 14
 <211> 1513
 <212> DNA
 <213> Human

<400> 14	
cgcccctgac accattcctc ccttcccccc tccaccggcc gcgggcataa aaggcgccag	60
gtgagggcct cgccgctcct cccgcgaatc gcagcttctg agaccagggt tgctccgtcc	120
gtgctccgcc tcgccatgac ttcctacagc tatcgccagt cgtcggccac gtcgtccttc	180
ggaggcctgg gcggcggtc cgtagctttt gggccggggg tcgcctttcg cgcgcccagc	240
attcacgggg gctccggcgg ccgcggcgta tccgtgtcct ccgcccgtt tgtgtcctcg	300
tcctcctcgg gggcctacgg cggcggtac ggcggcgctc tgaccgcgtc cgacgggctg	360
ctggcgggca acgagaagct aaccatgcag aacctcaacg accgcctggc ctctacctg	420
gacaagggtc gcgccctgga ggcgccaac ggcgagctag aggtgaagat ccgcgactgg	480
taccagaagc aggggcctgg gccctccgc gactacagcc actactacac gaccatccag	540
gacctgcggg acaagattct tggtgccacc attgagaact ccaggattgt cctgcagatc	600
gacaatgccc gtctggctgc agatgacttc cgaaccaagt ttgagacgga acaggctctg	660
cgcatgagcg tggaggccga catcaacggc ctgcgcaggg tgctggatga gctgaccctg	720
gccaggaccg acctggagat gcagatcgaa ggcctgaagg aagagctggc ctacctgaag	780
aagaaccatg aggaggaaat cagtacgtg aggggccaaag tgggaggcca ggtcagtgtg	840
gaggtggatt ccgctccggg caccgatctc gccaagatcc tgagtgacat gcgaagccaa	900
tatgagggtca tggccgagca gaaccggaag gatgctgaag cctgggtcac cagccggact	960

IMMC 143 PCT.US.ST25.txt

gaagaattga accgggaggt cgctggccac acggagcagc tccagatgag caggtccgag 1020
 gttactgacc tgcggcgccac ctttcagggt cttgagattg agctgcagtc acagctgagc 1080
 atgaaagctg ccttgggaaga cacactggca gaaacggagg cgcgctttgg agcccagctg 1140
 gcgcatatcc aggcgctgat cagcgggtatt gaagcccagc tgggcatgtt gcgagctgat 1200
 agtgagcggc agaatcagga gtaccagcgg ctcatggaca tcaagtcgag gctggagcag 1260
 gagattgcc a cctaccgcag cctgctcgag ggacaggaag atcactacaa caatttgtct 1320
 gcctccaagg tcctctgagg cagcaggctc tggggcttct gctgtccttt ggaggggtgtc 1380
 ttctgggtag agggatggga aggaagggac ccttaccccc ggctcttctc ctgacctgcc 1440
 aataaaaaatt tatggtccaa gggaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1500
 aaaaaaaaaa aaa 1513

<210> 15
 <211> 1817
 <212> DNA
 <213> Human

<400> 15
 caaccatcct gaagctacag gtgctccctc ctggaatctc caatggattt cagtcgcaga 60
 agcttccaca gaagcctgag ctccctccttg caggcccctg tagtcagtac agtgggcatg 120
 cagcgcctcg ggacgacacc cagcgtttat gggggtgctg gaggccgggg catccgcac 180
 tccaactcca gacacacggg gaactatggg agcgatctca caggcggcgg ggacctgttt 240
 gttggcaatg agaaaatggc catgcagaac ctaaatgacc gtctagcgag ctacctagaa 300
 aagggtgcga ccctggagca gtccaactcc aaacttgaag tgcaaatcaa gcagtggtag 360
 gaaaccaacg ccccgagggc tggctcgcgac tacagtgcac attacagaca aattgaagag 420
 ctgcgaagtc agattaagga tgctcaactg caaaatgctc ggtgtgtcct gcaaattgat 480
 aatgctaaac tggctgctga ggacttcaga ctgaagtatg agactgagag aggaatacgt 540
 ctaacagtgg aagctgatct ccaaggcctg aataaggctt ttgatgacct aacctacat 600
 aaaacagatt tggagattca aattgaagaa ctgaataaag acctagctct cctcaaaaag 660
 gagcatcagg aggaagtcga tggcctacac aagcatctgg gcaacactgt caatgtggag 720
 gttgatgctg ctccaggcct gaaccttggc gtcacatga atgaaatgag gcagaagtat 780
 gaagtcatgg cccagaagaa cttcaagag gccaaagaac agtttgagag acagactgca 840
 gttctgcagc aacaggctac agtgaatact gaagaattaa aaggaactga ggttcaacta 900
 acggagctga gacgcacctc ccagagcctt gagatagaac tccagtcca tctcagcatg 960
 aaagagtctt tggagcacac tctagaggag accaaggccc gttacagcag ccagttagcc 1020
 aacctccagt cgctgttgag ctctctggag gcccaactga tgcagattcg gagtaacatg 1080

IMMC 143 PCT.US.ST25.txt

```

gaacgccaga acaacgaata ccatatcctt cttgacataa agactcgact tgaacaggaa 1140
attgctactt accgccgcct tctggaagga gaagacgtaa aaactacaga atatcagtta 1200
agcaccctgg aagagagaga tataaagaaa accaggaaga ttaagacagt cgtgcaagaa 1260
gtagtggatg gcaaggctcg gtcattctgaa gtcaaagagg tggaagaaaa tatctaaata 1320
gctaccagaa ggagatgctg ctgagggtttt gaaagaaatt tggctataat cttatctttg 1380
ctccctgcaa gaaatcagcc ataagaaagc actattaata ctctgcagtg attagaaggg 1440
gtgggggtggc gggaaatccta tttatcagac tctgtaattg aatataaatg ttttactcag 1500
aggagctgca aattgcctgc aaaaatgaaa tccagtgcgc actagaatat ttaaaacatc 1560
attactgcca tctttatcat gaagcacatc aattacaagc tntagaccac ctaatatcaa 1620
tttgtaggta atgttcctga aaattgcaat acatttcaat tataactaaac ctcacaaagt 1680
agaggaatcc atgtaaattg caaataaacc acttttctaat tttttcctgt ttctgaaaaa 1740
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1800
aaaaaaaaaa aaaaaaaa 1817

```

```

<210> 16
<211> 5435
<212> DNA
<213> Human

```

```

<220>
<221> misc_feature
<222> (9)..(9)
<223> n is a, c, g, or t

```

```

<220>
<221> misc_feature
<222> (1239)..(1239)
<223> n is a, c, g, or t

```

```

<400> 16
cccgggagnt ggagcttgca gtgagccaag atgggtgccac tgmmtccag cctgggtgac 60
aaagcgagac tccatctcaa aaaaagaaaa aaaagaaagc attgggaaag cctaaatggg 120
ctacaggcca cttggaagag aagtgcacac actctcagaa agggaaagaa tgaatgaatg 180
aaagaatgtg ctttctgggg aggaacagtc agcatttttg ataatttctg agaggcaggt 240
cagtggagta gttaagacca tgaacgctag ggccagattc tgcttcttca tatttttaca 300
gccttgggaa agttattctc tctgtgccac actttgttta tctgaaacat gaagacamct 360
acagcatctt ctttacagag tctttctaaa aattaaatga gttaattttt gtaaaatcct 420
tcaaagagtc ccagccatat gttaagttcc atgtaaatac tttgctaata aaaataaaat 480
tttgaggtta taagcgcaga gtttcttgga taatactgtt ctatgtccta aggaattaca 540

```


acacatatatac ttagtggtttc aatgaacacc aagataaata agtgaagagc tagtccgctg	600
tgagtctcct cagtgacaca gggctggatc accatcgacg gcactttctg agtactcagt	660
gcagcaaaga aagactacag acatctcaat ggcaggggtg agttacatgg tagaacgaag	720
aatagaccag aagccagaag tgctggcctt taaccatata cctgctattc gctagctgtg	780
taccctctgc aaatgtcctg ggtcttagat tgggtgtctat gaattagaca atctttaaga	840
tctcttctag cctcccccac gttacgtgtc atttttcctta ggtttctttt aaagtgccca	900
aaacagtcca catagtaggt atttggtgta ttaaacagaa aggcactgaa ccacaaagca	960
gacacttgat taacatcagt tgtatctgac tatgcctttt tttgtttgtt tgtttttttg	1020
gaaacagagt tccactctgt cgcccagggt cgagtgcaat ggcmmaatta cagctcactg	1080
caacctccgc ctcccatgtt ccagcaattc tcctgcctca gcctcccaag tagctgggat	1140
tacaggcatg caccagcacg cccagctaata ttttgtattt ttagtagaga tggggtttca	1200
ccatattggc caggctgggtc ttgaactcct gacctcagnt gaccacactg cctcagcctc	1260
ccaaagtgct gggattacag gtgtgagcca ctgctcccca agaagtcata tgacctgtgg	1320
grtctctaga ggggacctca agagaatggt gtgtgtcagg cactgcacta gtgactttat	1380
gtagattgct tcatttgttc ctgccaacag cccactgaaa taagtattaa aattctgtgc	1440
ccagtgaaga aacagagagg gtgtttgtga tgctcggaaa ccaataatat tgtgtgtagc	1500
tctcaactca agttcagggw wwgctgacac cttgccattt gtctcctcaa atggctcgat	1560
gtatttccag gtgagaaata agaaaggctg ctgactttac catctgaggc cacacatctg	1620
ctgaaatgga gataattaac atcactagaa acagcaagat gacaataataa tgtctaagta	1680
gtgacatggt tttgcacatt tccagcccct ttaaataatcc acacacacag gaagcacaaa	1740
aggaagcaca gaggtaagtg ctttataaag cactcaattt ctactcagaa atttttgatg	1800
gccttaagtt cctctactcg tttctatcct tcctactcac tgcctcccg gaatccacta	1860
ccgattttct atttcttgcc tcgtattgtc tgactggctc acttggattt atctcacgga	1920
gtctggattt tctacccggg ctcacctcg tccctccata tttgtcctcc actttcacag	1980
atccctggga gaaatgcccg gccgccatct tgggtcatcg atgagcctcg ccctgtgcct	2040
gggtcccgtt gtgaggggaag gacattagaa aatgaattga tgtgttcctt aaaggatggg	2100
caggaaaaca gatcctgttg tggatatatta tttgaacggg attacagatt tgaaatgaag	2160
tcacaaagtg agcattacca atgagaggaa aacagacgag aaaatcttga tggcttcaca	2220
agacatgcaa caaacaaaat ggaatactgt gatgacatga ggcagccaag ctggggagga	2280
gataaccacg gggcagaggg tcaggattct ggccctgctg cctaaactgt gcgttcataa	2340
ccaaatcatt tcatatttct aaccctcaaa acaaagctgt tgtaatatct gatctctacg	2400
gttccttctg ggcccaacat tctccatata tccagccaca ctcatTTTTA atatttagtt	2460

IMMC 143 PCT.US.ST25.txt

cccagatctg	tactgtgacc	tttctacact	gtagaataac	attactcatt	ttgttcaaag	2520
acccttcgtg	ttgctgccta	atatgtagct	gactgttttt	cctaaggagt	gttctggccc	2580
aggggatctg	tgaacaggct	gggaagcatc	tcaagatctt	tccagggtta	tacttactag	2640
cacacagcat	gatcattacg	gagtgaatta	tctaataaac	atcatcctca	gtgtccttgc	2700
ccatactgaa	attcattttcc	cactttttgtg	cccatttctca	agacctcaaa	atgtcattcc	2760
attaatatca	caggattaac	tttttttttt	aacctggaag	aattcaatgt	tacatgcagc	2820
tatgggaatt	taattacata	ttttgttttc	cagtgcaaag	atgactaagt	cctttatccc	2880
tcccctttgt	ttgatttttt	ttccagtata	aagttaaaat	gcttagcctt	gtactgaggc	2940
tgtatacagc	acagcctctc	cccatccctc	cagccttata	tgtcatcacc	atcaaccctt	3000
cccataccac	ctaaacaaaa	tctaacttgt	aattccttga	acatgtcagg	acatacatta	3060
ttcctttctgc	ctgagaagct	cttccttgtc	tcttaaatct	agaatgatgt	aaagttttga	3120
ataagttgac	tatcttactt	catgcaaaga	agggacacat	atgagattca	tcatcacatg	3180
agacagcaaa	tactaaaagt	gtaatttgat	tataagagtt	tagataaata	tatgaaatgc	3240
aagagccaca	gagggaaatgt	ttatggggca	cgtttgtaag	cctgggatgt	gaagcaaagg	3300
cagggaacct	catagtatct	tatataatat	acttcatttc	tctatctcta	tcacaatatc	3360
caacaagctt	ttcacagaat	tcatgcagtg	caaatcccca	aaggtaacct	ttatccattt	3420
catggtgagt	gcgctttaga	attttgga	atcatactgg	tcacttatct	caactttgag	3480
atgtgtttgt	ccttgtagtt	aattgaaaga	aatagggcac	tcttgtagagc	cactttaggg	3540
ttcactcctg	gcaataaaga	atttacaaag	agctactcag	gaccagttgt	taagagctct	3600
gtgtgtgtgt	gtgtgtgtgt	gtgagtgtac	atgccaaagt	gtgcctctct	ctcttgaccc	3660
attatttcag	acttaaaaca	agcatgtttt	caaatggcac	tatgagctgc	caatgatgta	3720
tcaccaccat	atctcattat	tctccagtaa	atgtgataat	aatgtcatct	gttaacataa	3780
aaaaagtttg	acttcacaaa	agcagctgga	aatggacaac	cacaatatgc	ataaatctaa	3840
ctcctaccat	cagctacaca	ctgcttgaca	tatattgtta	gaagcacctc	gcattttgtgg	3900
gttctcttaa	gcaaaatact	tgcattaggt	ctcagctggg	gctgtgcatc	aggcggtttg	3960
agaaatattc	aattctcagc	agaagccaga	atttgaattc	cctcatcttt	taggaatcat	4020
ttaccagggt	tggagaggat	tcagacagct	cagggtgcttt	cactaatgtc	tctgaacttc	4080
tgtccctctt	tgtgttcatg	gatagtccaa	taaataatgt	tatctttgaa	ctgatgctca	4140
taggagagaa	tataagaact	ctgagtgata	tcaacattag	ggattcaaag	aaatattaga	4200
tttaagctca	cactgggtcaa	aaggaacca	gatacaaaga	actctgagct	gtcatcgctc	4260
ccatctctgt	gagccacaac	caacagcagg	acccaacgca	tgtctgagat	ccttaaatca	4320

IMMC 143 PCT.US.ST25.txt

aggaaaccag tgtcatgagt tgaattctcc tattatggat gctagcttct ggccatctct 4380
 ggctctcctc ttgacacata ttagcttcta gcctttgctt ccacgacttt tatcttttct 4440
 ccaacacatc gcttaccaat cctctctctg ctctgttgct ttggacttcc ccacaagaat 4500
 ttcaacgact ctcaagtctt ttcttccatc cccaccacta acctgaatgc ctagaccctt 4560
 atttttatta atttccaata gatgctgcct atgggctata ttgctttaga tgaacattag 4620
 atatttaaag ctcaagaggt tcaaaatcca actcattatc ttctctttct ttcacctccc 4680
 tgctcctctc cctatattac tgattgcaact gaacagcatg gtccccaatg tagccatgca 4740
 aatgagaaac ccagtggctc cttgtggtac atgcatgcaa gactgctgaa gccagaagga 4800
 tgactgatta cgcctcatgg gtggagggga ccactcctgg gccttcgtga ttgtcaggag 4860
 caagacctga gatgctccct gccttcagtg tcctctgcat ctcccccttc taatgaagat 4920
 ccatagaatt tgctacattt gagaattcca attaggaact cacatgtttt atctgcccta 4980
 tcaatttttt aaacttgctg aaaattaagt tttttcaaaa tctgtccttg taaattactt 5040
 tttcttacag tgtcttggca tactatatca actttgattc tttgttaca cttttcttac 5100
 tcttttatca ccaaagtggc ttttattctc tttattatta ttattttctt ttactactat 5160
 attacgttgt tattattttg ttctctatag tatcaattta tttgatttag tttcaattta 5220
 tttttattgc tgacttttaa aataagtgat tcgggggggtg ggagaacagg ggagggagag 5280
 cattaggaca aatacctaata gcatgtggga cttaaacct agatgatggg ttgatagggtg 5340
 cagcaaacca ctatggcaca cgtatactg tgtaacaaac ctacacattc tgcacatgta 5400
 tcccagaacg taaagtaaaa tttaaaaaaa agtga 5435

<210> 17
 <211> 3582
 <212> DNA
 <213> unknown

<220>
 <223> no Organism listed

<400> 17
 acagaagaaa tagcaagtgc cgagaagctg gcatcagaaa aacagagggg agatttgtgt 60
 ggctgcagcc gagggagacc aggaagatct gcatggtggg aaggacctga tgatacagag 120
 gaattacaac acatatactt agtgtttcaa tgaacaccaa gataaataag tgaagagcta 180
 gtccgctgtg agtctcctca gtgacacagg gctggatcac catcgacggc actttctgag 240
 tactcagtgc agcaaagaaa gactacagac atctcaatgg caggggtgag aaataagaaa 300
 ggctgctgac ttaccatct gaggccacac atctgctgaa atggagataa ttaacatcac 360
 tagaaacagc aagatgacaa tataatgtct aagtagtgac atgtttttgc acatttccag 420
 cccctttaaa tatccacaca cacaggaagc acaaaaggaa gcacagagat ccctgggaga 480

IMMC 143 PCT.US.ST25.txt

aatgcccggc	cgccatcttg	ggatcatcgat	gagcctcgcc	ctgtgcctgg	tcccgcttgt	540
gaggaagga	cattagaaaa	tgaattgatg	tgttccttaa	aggatgggca	ggaaaacaga	600
tcctgttgtg	gatatttatt	tgaacgggat	tacagatttg	aaatgaagtc	acaaagttag	660
cattaccaat	gagaggaaaa	cagacgagaa	aatcttgatg	gcttcacaag	acatgcaaca	720
aacaaaatgg	aatactgtga	tgacatgagg	cagccaagct	ggggaggaga	taaccacggg	780
gcagagggtc	aggattctgg	ccctgctgcc	taaactgtgc	gttcataacc	aaatcatttc	840
atattttctaa	ccctcaaaac	aaagctgttg	taatatctga	tctctacggg	tccttctggg	900
cccaacattc	tccatataat	cagccacact	catttttaat	atttagttcc	cagatctgta	960
ctgtgacctt	tctacactgt	agaataacat	tactcatttt	gttcaaagac	ccttcgtgtt	1020
gctgccta	atgtagctga	ctgtttttcc	taaggagtgt	tctggcccag	gggatctgtg	1080
aacaggctgg	gaagcatctc	aagatctttc	caggggtata	cttactagca	cacagcatga	1140
tcattacgga	gtgaattatc	taatcaacat	catcctcagt	gtctttgccc	atactgaaat	1200
tcatttccca	cttttgtgcc	cattctcaag	acctcaaaat	gtcattccat	taatatcaca	1260
ggattaactt	ttttttttta	cctggaagaa	ttcaatgtta	catgcagcta	tgggaattta	1320
attacatatt	ttgttttcca	gtgcaaagat	gactaagtcc	tttatccctc	ccctttgttt	1380
gatttttttt	ccagtataaa	gttaaaatgc	ttagccttgt	actgaggctg	tatacagcac	1440
agcctctccc	catccctcca	gccttatctg	tcatcaccat	caaccctcc	cataccacct	1500
aaacaaaatc	taacttgtaa	ttccttgaac	atgtcaggac	atacattatt	ccttctgcct	1560
gagaagctct	tccttgtctc	ttaaactctag	aatgatgtaa	agttttgaat	aagttgacta	1620
tcttacttca	tgcaaagaag	ggacacatat	gagattcatc	atcacatgag	acagcaaata	1680
ctaaaagtgt	aatttgatta	taagagttaa	gataaatata	tgaaatgcaa	gagccacaga	1740
gggaatgttt	atggggcacg	tttgtgaagc	tgggatgtga	agcaaaggca	gggaacctca	1800
tagtatctta	tataatatac	ttcattttct	tatctctatc	acaatatcca	acaagctttt	1860
cacagaattc	atgcagtgc	aatccccaaa	ggtaaccttt	atccatttca	tggtagtgct	1920
gctttagaat	tttggcaaat	catactgggc	acttatctca	actttgagat	gtgtttgtcc	1980
ttgtagttaa	ttgaaagaaa	tagggcactc	ttgtgagcca	ctttagggtt	cactcctggc	2040
aataaagaat	ttacaaagag	ctactcagga	ccagttgtta	agagctctgt	gtgtgtgtgt	2100
gtgtgtgtgt	gaggtacat	gccaaagtgt	gcctctctct	cttgacccat	tatttcagac	2160
ttaaaacaag	catgttttca	aatggcacta	tgagctgcca	atgatgtatc	accaccatat	2220
ctcattattc	tccagtaaat	gtgataataa	tgtcatctgt	taacataaaa	aaagtttgac	2280
ttcacaaaag	cagctggaaa	tggacaacca	caatatgcat	aaatctaact	cctaccatca	2340

IMMC 143 PCT.US.ST25.txt

gctacacact gcttgacata tattgttaga agcacctcgc atttgtgggt tctcttaagc 2400
 aaaatacttg cattaggtct cagctggggc tgtgcatcag gcggtttgag aaatattcaa 2460
 ttctcagcag aagccagaat ttgaattccc tcatctttta ggaatcattt accagggttg 2520
 gagaggattc agacagctca ggtgctttca ctaatgtctc tgaacttctg tccctctttg 2580
 tgttcatgga tagtccaata aataatgtta tctttgaact gatgctcata ggagagaata 2640
 taagaactct gagtgatata aacattaggg attcaaagaa atattagatt taagctcaca 2700
 ctgggtcaaaa ggaaccaaga tacaagaac tctgagctgt catcgtcccc atctctgtga 2760
 gccacaacca acagcaggac ccaacgcatg tctgagatcc ttaaatcaag gaaaccagtg 2820
 tcatgagttg aattctccta ttatggatgc tagcttctgg ccatctctgg ctctcctctt 2880
 gacacatatt agcttctagc ctttgcttcc acgactttta tcttttctcc aacacatcgc 2940
 ttaccaatcc tctctctgct ctgttgcttt ggacttcccc acaagaattt caacgactct 3000
 caagtctttt ctcccatccc caccactaac ctgaattgcc tagaccctta tttttattaa 3060
 tttccaatag atgctgccta tgggctaata ttgctttaga tgaacattag atatttaaag 3120
 tctaagaggt tcaaaatcca actcattatc ttctctttct ttcacctccc ctgctcctct 3180
 ccctatatta ctgattgact gaacaggatg gtccccaaga tgccagtcaa atgagaaacc 3240
 cagtggctcc ttgtggatca tgcattgcaag actgctgaag ccagaggatg actgattacg 3300
 cctcatgggt ggaggggacc actcctgggc cttcgtgatt gtcaggagca agacctgaga 3360
 tgctccctgc cttcagtgtc ctctgcatct cccctttcta atgaagatcc atagaatttg 3420
 ctacatttga gaattccaat taggaactca catgttttat ctgccctatc aattttttaa 3480
 acttgctgaa aattaagttt tttcaaaatc tgtccttgta aattactttt tcttacagtg 3540
 tcttggcata ctatatcaac ttgtattctt tgttacaact tt 3582

<210> 18
 <211> 4407
 <212> DNA
 <213> Human

<400> 18
 tttcgactcg cgctccggct gctgtcactt ggctctctgg ctggagcttg aggacgcaag 60
 gagggtttgt cactggcaga ctcgagactg taggcactgc catggcccct gtgctcagta 120
 aggactcggc ggacatcgag agtatcctgg ctttaaattcc tcgaacacaa actcatgcaa 180
 ctctgtgttc cacttcggcc aagaaattag acaagaaaca ttggaaaaga aatcctgata 240
 agaactgctt taattgtgag aagctggaga ataattttga tgacatcaag cacacgactc 300
 ttggtgagcg aggagctctc cgagaagcaa tgagatgcct gaaatgtgca gatgccccgt 360
 gtcagaagag ctgtccaact aatcttgata ttaaatcatt catcacaagt attgcaaaca 420

agaactatta	tggagctgct	aagatgatat	tttctgacaa	cccacttggt	ctgacttgtg	480
gaatggtatg	tccaacctct	gatctatgtg	taggtggatg	caatttatat	gccactgaag	540
agggacccat	taatattggt	ggattgcagc	aatttgctac	tgaggtattc	aaagcaatga	600
gtatcccaca	gatcagaaat	ccttcgctgc	ctccccaga	aaaaatgtct	gaagcctatt	660
ctgcaaagat	tgctcttttt	ggtgctgggc	ctgcaagtat	aagttgtgct	tccttttttg	720
ctcgattggg	gtactctgac	atcactatat	ttgaaaaaca	agaatatggt	ggtggtttta	780
gtacttctga	aattcctcag	ttccggctgc	cgtatgatgt	agtgaatttt	gagattgagc	840
taatgaagga	ccttggtgta	aagataattt	gcggtaaaag	cctttcagtg	aatgaaatga	900
ctcttagcac	tttgaaagaa	aaaggctaca	aagctgcttt	cattggaata	ggtttgccag	960
aacccaataa	agatgccatc	ttccaaggcc	tgacgcagga	ccagggggtt	tatacatcca	1020
aagacttttt	gccacttgta	gccaaaggca	gtaaagcagg	aatgtgcgcc	tgctactctc	1080
cattgccatc	gatacgggga	gtcgtgattg	tacttggagc	tggagacact	gccttcgact	1140
gtgcaacatc	tgctctacgt	tgtggagctc	gccgagtgtt	catcgtcttc	agaaaaggct	1200
ttgttaatat	aagagctgtc	cctgaggaga	tggagcttgc	taaggaagaa	aagtgtgaat	1260
ttctgccatt	cctgtcccca	cggaagggtta	tagtaaaagg	tgggagaatt	gttgctatgc	1320
agtttgttcg	gacagagcaa	gatgaaactg	gaaaaatggaa	tgaagatgaa	gatcagatgg	1380
tccatctgaa	agccgatgtg	gtcatcagtg	cctttggttc	agttctgagt	gacctaag	1440
taaaagaagc	cttgagccct	ataaaattta	acagatgggg	tctcccagaa	gtagatccag	1500
aaactatgca	aactagtga	gcatgggtat	ttgcagggtg	tgatgtcggt	ggtttggcta	1560
acactacagt	ggaatcgggtg	aatgatggaa	agcaagcttc	ttggtacatt	cacaaatacg	1620
tacagtcaca	atatggagct	tccgtttctg	ccaagcctga	actaccctc	ttttacactc	1680
ctattgatct	ggtggacatt	agtgtagaaa	tggccggatt	gaagtttata	aatccttttg	1740
gtcttgctag	cgcaactcca	gccaccagca	catcaatgat	tcgaagagct	tttgaagctg	1800
gatgggggtt	tgccctcacc	aaaactttct	ctcttgataa	ggacattgtg	acaaatgttt	1860
cccccagaat	catccgggga	accacctctg	gccccatgta	tggccctgga	caaagctcct	1920
ttctgaatat	tgagctcatc	agtgagaaaa	cggctgcata	ttggtgtcaa	agtgtcactg	1980
aactaaaggc	tgacttcca	gacaacattg	tgattgctag	cattatgtgc	agttacaata	2040
aaaatgactg	gacggaactt	gccaagaagt	ctgaggattc	tggagcagat	gccctggagt	2100
taaatttatc	atgtccacat	ggcatgggag	aaagaggaat	gggcctggcc	tgtgggcagg	2160
atccagagct	ggtgcggaac	atctgccgct	gggttaggca	agctgttcag	attccttttt	2220
ttgccaagct	gaccccaaat	gtcactgata	ttgtgagcat	cgcaagagct	gcaaaggaag	2280
gtggtgccaa	tggcgttaca	gccaccaaca	ctgtctcagg	tctgatggga	ttaaaatctg	2340

IMMC 143 PCT.US.ST25.txt

atggcacacc ttggccagca gtgggggattg caaagcgaac tacatatgga ggagtgtctg	2400
ggacagcaat cagacctatt gctttgagag ctgtgacctc cattgctcgt gctctgcctg	2460
gatttcccat tttggctact ggtggaattg actctgctga aagtggctct cagtttctcc	2520
atagtgggtgc ttccgtcctc caggtatgca gtgccattca gaatcaggat ttcactgtga	2580
tcgaagacta ctgcaactggc ctcaaagccc tgctttatct gaaaagcatt gaagaactac	2640
aagactggga tggacagagt ccagctactg tgagtcacca gaaagggaaa ccagttccac	2700
gtatagctga actcatggac aagaaactgc caagttttgg accttatctg gaacagcgca	2760
agaaaatcat agcagaaaac aagattagac tgaaagaaca aaatgtagct ttttcaccac	2820
ttaagagaag ctgttttatc cccaaaaggc ctattcctac catcaaggat gtaataggaa	2880
aagcactgca gtaccttga acatttggtg aattgagcaa cgtagagcaa gttgtggcta	2940
tgattgatga agaaatgtgt atcaactgtg gtaaatgcta catgacctgt aatgattctg	3000
gctaccaggc tatacagttt gatccagaaa cccacctgcc caccataacc gacacttgta	3060
caggctgtac tctgtgtctc agtgtttgcc ctattgtcga ctgcatcaaa atggtttcca	3120
ggacaacacc ttatgaacca aagagaggcg tacccttatc tgtgaatccg gtgtgttaag	3180
gtgatttgtg aaacagttgc tgtgaacttt catgtcacct acatatgctg atctcttaaa	3240
atcatgatcc ttgtgttcag ctctttccaa attaaaacaa atatacattt tctaaataaa	3300
aatatgtaat ttcaaaatac atttgtaagt gtaaaaaatg tctcatgtca atgaccattc	3360
aattagtggc ataaaataga ataattcttt tctgaggata gtagttaaat aactgtgtgg	3420
cagttaattg gatgttcact gccagttgtc ttatgtgaaa aattaacttt ttgtgtggca	3480
attagtgtga cagtttccaa attgccctat gctgtgctcc atatttgatt tctaattgta	3540
agtgaatta agcattttga aacaaagtac tctttaacat acaagaaaat gtatccaagg	3600
aaacatttta tcaataaaaa ttaccttta ttttaatgct gtttctaaga aaatgtagtt	3660
agctccataa agtacaaatg aagaaagtca aaaattattt gctatggcag gataagaaaag	3720
cctaaaattg agtttgtgga ctttattaag taaaatcccc ttcgctgaaa ttgcttattt	3780
ttggtgttgg atagaggata gggagaatat ttactaacta aataccattc actactcatg	3840
cgtagagatg gtgtacaaac tcacctctct ttaatggcat ttctctttaa actatgttcc	3900
taaccaaatg agatgatagg atagatcctg gttaccactc ttttactgtg cacatatggg	3960
ccccggaatt ctttaatagt caccttcatg attatagcaa ctaatgtttg aacaaagctc	4020
aaagtatgca atgcttcatt attcaagaat gaaaaatata atgttgataa tatatatata	4080
gtgtgccaaa tcagtttgac tactctctgt tttagtgttt atgtttaaaa gaaatatatt	4140
ttttgttatt attagataat atttttgtat ttctctattt tcataatcag taaatagtgt	4200

IMMC 143 PCT.US.ST25.txt

catataaact catttatctc ctcttcatgg catcttcaat atgaatctat aagtagtaaa	4260
tcagaaagta acaatctatg gcttatttct atgacaaatt caagagctag aaaaataaaa	4320
tgtttcatta tgcactttta gaaatgcata tttgccacaa aacctgtatt actgaataat	4380
atcaaataaa atatcataaa gcattttt	4407

<210> 19
 <211> 5616
 <212> DNA
 <213> Human

<400> 19	
ccccggcgca gcgcggccgc agcagcctcc gccccccgca cggtgtgagc gcccgacgcg	60
gccgaggcgc ccggagtccc gagctagccc cggcgccgc cgccgccag accggacgac	120
aggccacctc gtcggcgctc gcccgagtcc ccgcctcgcc gccaacgcca caaccaccgc	180
gcacggcccc ctgactccgt ccagtattga tcgggagagc cggagcgagc tcttcgggga	240
gcagcgatgc gacctccgc gacggccggg gcagcgctcc tggcgctgct ggctgcgctc	300
tgcccgcgca gtcgggctct ggaggaaaag aaagtttgcc aaggcacgag taacaagctc	360
acgcagttgg gcacttttga agatcatttt ctacgcctcc agaggatgtt caataactgt	420
gagtggttcc ttgggaattt ggaaattacc tatgtgcaga ggaattatga tctttccttc	480
ttaaagacca tccaggaggt ggctggttat gtcctcattg ccctcaacac agtggagcga	540
attccttttg aaaacctgca gatcatcaga ggaaatatgt actacgaaaa ttcctatgcc	600
ttagcagtct tatctaacta tgatgcaaat aaaaccggac tgaaggagct gcccatgaga	660
aatttacagg aaatcctgca tggcgccgtg cggttcagca acaaccctgc cctgtgcaac	720
gtggagagca tccagtggcg ggacatagtc agcagtgact ttctcagcaa catgtcgatg	780
gacttcaga accacctggg cagctgccaa aagtgtgatc caagctgtcc caatgggagc	840
tgctggggtg caggagagga gaactgccag aaactgacca aaatcatctg tgcccagcag	900
tgctccgggc gctgccgtgg caagtcccc agtgactgct gccacaacca gtgtgctgca	960
ggctgcacag gccccggga gagcgactgc ctggctctgcc gcaaattccg agacgaagcc	1020
acgtgcaagg acacctgccc cccactcatg ctctacaacc ccaccacgta ccagatggat	1080
gtgaaccccg agggcaaata cagcttttgt gccacctgcg tgaagaagtg tccccgtaat	1140
tatgtggtga cagatcacgg ctctgctgct cgagcctgtg gggccgacag ctatgagatg	1200
gaggaagacg gcgtccgcaa gtgtaagaag tgcgaagggc cttgccgcaa agtgtgtaac	1260
ggaataggta ttggtgaatt taaagactca ctctccataa atgctacgaa tattaaacac	1320
ttcaaaaact gcacctccat cagtggcgat ctccacatcc tgccggtggc atttaggggt	1380
gactccttca cacatactcc tcctctggat ccacaggaac tggatattct gaaaaccgta	1440

aaggaaatca	caggggttttt	gctgattcag	gcttggcctg	aaaacaggac	ggacctccat	1500
gcctttgaga	acctagaaat	catacgcggc	aggaccaagc	aacatgggtca	gttttctctt	1560
gcagtcgtca	gcctgaacat	aacatccttg	ggattacgct	ccctcaagga	gataagtgat	1620
ggagatgtga	taatttcagg	aaacaaaaat	ttgtgctatg	caaatacaat	aaactggaaa	1680
aaactgtttg	ggacctccg	tcagaaaacc	aaaattataa	gcaacagagg	tgaaaacagc	1740
tgcaaggcca	caggccaggt	ctgccatgcc	ttgtgctccc	ccgaggggctg	ctgggggccc	1800
gagcccaggg	actgctgtc	ttgccggaat	gtcagccgag	gcagggaatg	cgtggacaag	1860
tgcaaccttc	tggaggggtga	gccaaaggag	tttgtggaga	actctgagtg	catacagtg	1920
caccagagt	gcctgcctca	ggccatgaac	atcacctgca	caggacgggg	accagacaac	1980
tgtatccagt	gtgcccacta	cattgacggc	ccccactg	tcaagacctg	cccggcagga	2040
gtcatgggag	aaaacaacac	cctgggtctg	aagtacgcag	acgccggcca	tgtgtgccac	2100
ctgtgccatc	caaactgcac	ctacggatgc	actgggccag	gtcttgaagg	ctgtccaacg	2160
aatgggccta	agatcccgtc	catcgccact	gggatgggtg	gggccctcct	cttgctgctg	2220
gtggtggccc	tggggatcgg	cctcttcatg	cgaaggcgcc	acatcgttcg	gaagcgcacg	2280
ctgcggaggc	tgctgcagga	gagggagctt	gtggagcctc	ttacacccag	tggagaagct	2340
cccaaccaag	ctctcttgag	gatcttgaag	gaaactgaat	tcaaaaagat	caaagtgctg	2400
ggctccggtg	cgttcggcac	ggtgtataag	ggactctgga	tcccagaagg	tgagaaagtt	2460
aaaattcccc	tcgctatcaa	ggaattaaga	gaagcaacat	ctccgaaagc	caacaaggaa	2520
atcctcgatg	aagcctacgt	gatggccagc	gtggacaacc	cccacgtgtg	ccgcctgctg	2580
ggcatctgcc	tcacctccac	cgtgcagctc	atcacgcagc	tcatgccctt	cggctgcctc	2640
ctggactatg	tccgggaaca	caaagacaat	attggctccc	agtacctgct	caactggtgt	2700
gtgcagatcg	caaagggcat	gaactacttg	gaggaccgtc	gcttggtgca	ccgcgacctg	2760
gcagccagga	acgtactggt	gaaaacaccg	cagcatgtca	agatcacaga	ttttgggctg	2820
gccaaactgc	tgggtgcgga	agagaaagaa	taccatgcag	aaggaggcaa	agtcctatc	2880
aagtggatgg	cattggaatc	aattttacac	agaatctata	cccaccagag	tgatgtctgg	2940
agctacgggg	tgaccgtttg	ggagttgatg	acctttggat	ccaagccata	tgacggaatc	3000
cctgccagcg	agatctcctc	catcctggag	aaaggagaac	gcctccctca	gccaccata	3060
tgtaccatcg	atgtctacat	gatcatggtc	aagtgctgga	tgatagacgc	agatagtcgc	3120
ccaaagtccc	gtgagttgat	catcgaattc	tccaaaatgg	cccagagacc	ccagcgctac	3180
cttgtcattc	aggggggatga	aagaatgcat	ttgccaaagtc	ctacagactc	caacttctac	3240
cgtgccctga	tggatgaaga	agacatggac	gacgtgggtg	atgccgacga	gtacctcatc	3300
ccacagcagg	gcttcttcag	cagccccctc	acgtcacgga	ctccccctcct	gagctctctg	3360

IMMC 143 PCT.US.ST25.txt

agtgaacca gcaacaattc caccgtggct tgcattgata gaaatgggct gcaaagctgt	3420
cccatcaagg aagacagctt cttgcagcga tacagctcag accccacagg cgccttgact	3480
gaggacagca tagacgacac cttcctccca gtgcctgaat acataaacca gtccgttccc	3540
aaaaggcccg ctggctctgt gcagaatcct gtctatcaca atcagcctct gaaccccgcg	3600
cccagcagag acccacacta ccaggacccc cacagcactg cagtgggcaa ccccgagtat	3660
ctcaactctg tccagcccac ctgtgtcaac agcacattcg acagccctgc ccactgggcc	3720
cagaaaggca gccaccaa at tagcctggac aaccctgact accagcagga cttctttccc	3780
aaggaagcca agccaaatgg catctttaag ggctccacag ctgaaaatgc agaataccta	3840
agggtcgctg cacaaagcag tgaatttatt ggagcatgac cacggaggat agtatgagcc	3900
ctaaaaatcc agactctttc gatacccagg accaagccac agcaggctcct ccatcccaac	3960
agccatgccc gcattagctc ttagacccac agactggttt tgcaacgttt acaccgacta	4020
gccaggaagt acttccacct cgggcacatt ttgggaagtt gcattccttt gtcttcaaac	4080
tgtgaagcat ttacagaaac gcatccagca agaataattgt ccctttgagc agaaatttat	4140
ctttcaaaga ggtatatattg aaaaaaaaaa aaagtatatg tgaggatttt tattgattgg	4200
ggatcttggg gtttttcatt gtcgctattg atttttactt caatgggctc ttccaacaag	4260
gaagaagctt gctggtagca cttgctaccc tgagttcatc caggcccaac tgtgagcaag	4320
gagcacaagc cacaagtctt ccagaggatg cttgattcca gtggttctgc ttcaaggctt	4380
ccactgcaaa acactaaaga tccaagaagg ctttcatggc cccagcaggc cggatcggtg	4440
ctgtatcaag tcatggcagg tacagtagga taagccactc tgtcccttcc tgggcaaaga	4500
agaaacggag gggatggaat tcttccttag acttactttt gtaaaaatgt cccacgggtg	4560
cttactcccc actgatggac cagtggtttc cagtcatgag cgtagactg acttgtttgt	4620
cttccattcc attgttttga aactcagtat gctgcccctg tcttgctgtc atgaaatcag	4680
caagagagga tgacacatca aataataact cggattccag cccacattgg attcatcagc	4740
atttggacca atagcccaca gctgagaatg tggaaatcct aaggatagca ccgcttttgt	4800
tctcgcaaaa acgtatctcc taatttgagg ctcagatgaa atgcatcagg tcctttgggg	4860
catagatcag aagactacaa aaatgaagct gctctgaaat ctccttttagc catcacccca	4920
accccccaaa attagtttgt gttacttatg gaagatagtt ttctcctttt acttcacttc	4980
aaaagctttt tactcaaaga gtatatgttc cctccaggctc agctgcccc aaacccccctc	5040
cttacgcttt gtcacacaaa aagtgtctct gccttgagtc atctattcaa gcacttacag	5100
ctctggccac aacagggcat ttacaggtg cgaatgacag tagcattatg agtagtgtgg	5160
aattcaggta gtaaatatga aactagggtt tgaaattgat aatgctttca caacatttgc	5220

IMMC 143 PCT.US.ST25.txt

agatgtttta	gaaggaaaaa	agttccttcc	taaaataatt	tctctacaat	tggaagattg	5280
gaagattcag	ctagtttaga	gccacacctt	tttcctaatac	tgtgtgtgcc	ctgtaacctg	5340
actgggttaac	agcagtcctt	tgtaaacagt	gttttaaaact	ctcctagtca	atatccaccc	5400
catccaattt	atcaaggaag	aaatgggttca	gaaaatattt	tcagcctaca	gttatgttca	5460
gtcacacaca	catacaaaat	gttccttttg	cttttaaagt	aatttttgac	tcccagatca	5520
gtcagagccc	ctacagcatt	gttaagaaaag	tatttgattt	ttgtctcaat	gaaaataaaa	5580
ctatattcat	ttccactcta	aaaaaaaaaa	aaaaaa			5616

<210> 20
 <211> 2805
 <212> DNA
 <213> Human

<400> 20	
cgggtctgat	agtccttacc
gtaaacatat	ataaacgtgt
gaaatcaagg	gagggctggg
gcgacagtcg	cgagccacac
cccagacgcg	ccaggctgtg
tgagtatcgg	ttctcccctt
ttctgatcct	atcgcgggcg
gcgggatgtg	tcacccaaat
cgggtagagt	ataagagccg
gacgccggag	cccagagccc
ttcctccgcc	ccaccatggc
ctgctgctgc	tggtgctggc
tgtcccacca	acaagatgac
cgcgcgctgg	gctcgggcat
ctcaaggcgc	gcatgagcgc
gcgctcgtgg	acaacgatgg
gcgcgccagt	gcaaccagac
acggacaagg	gcgacctgag
attgacctgc	gccaccgccc
ctgaggcggc	tcttccgcga
tacgagcagc	ccaccatcca
	gatcgagctg
	cggcagaaca
	cgtctcagaa
	ggccgcccgt
	60
	120
	180
	240
	300
	360
	420
	480
	540
	600
	660
	720
	780
	840
	900
	960
	1020
	1080
	1140
	1200
	1260

IMMC 143 PCT.US.ST25.txt

gaagtggata tcggcgatgc cgcctactac ttcgagaggg acatcaaggg cgagtctcta 1320
 ttccagggcc gcggcggcct ggacttgcg gcgagcgagg aaccttgca ggtggagcgc 1380
 acgctcatct attacctgga cgagattccc ccgaagttct ccatgaagcg cctcaccgcc 1440
 ggcctcatcg ccgtcatcgt ggtggtcgtg gtggccctcg tcgccggcat ggccgtcctg 1500
 gtgatcacca accggagaaa gtcggggaag tacaagaagg tggagatcaa ggaactgggg 1560
 gagttgagaa aggaaccgag cttgtaggta cccggcgggg caggggatgg ggtggggtag 1620
 cggatttcgg tatcgtccca gacccaagt agtcacgctt cctgattcct cggcgcaaag 1680
 gagacgttta tcctttcaaa ttcctgcctt cccctccct tttgcgaca caccaggttt 1740
 aatagatcct ggcctcaggg tctcctttct ttctcacttc tgtcttgagg gaagcatttc 1800
 taaaatgtat cccctttcgg tccaacaaca ggaaacctga ctggggcagt gaaggaaggg 1860
 atggcacagc gttatgtgta aaaaacaagt atctgtatga caaccggga tcgtttgcaa 1920
 gtaactgaat ccattgagc attgtgaagg cttaaagtag tttagatggg aaatagcgtt 1980
 gttatcgctt tgggtttaaa ttatttgatg agttccactt gtatcatggc ctaccggagg 2040
 agaagaggag tttgttaact gggcctatgt agtagcctca tttaccatcg tttgtattac 2100
 tgaccacata tgcttgtcac tgggaaagaa gcctgtttca gctgcctgaa cgcagtttgg 2160
 atgtctttga ggacagacat tgcccggaaa ctgagcttat ttattcttca gcttgccctt 2220
 actgccactg atattggtaa tgttcttttt tgtaaaatgt ttgtacatat gttgtctttg 2280
 ataattgtgc tgtaattttt taaaataaaa cacgaattta ataaaatatg ggaaaggcac 2340
 aaaccagaag tcggcatttg tgaaaagtcc ctccagattt ctatcacttt ggtctctaata 2400
 ttccaagac ttgtattttt tttttatttc aaattataac actttttttt cccccagaag 2460
 tgggtgtttc atgttgctac tctgggtgtg cccaagatat cctaactggc cagtgtaaat 2520
 gctattcttt ctaaataaga ttatttgga acttccttca aactgcagga gggcgagctc 2580
 tgagggcacg agaagctaaa actagctgct tttgatgaaa aagagtgcc gtccttggtc 2640
 atctctaaac aaggcttatc accaatggag acagaaaact ctagttcaag agctgtacct 2700
 cctttgaatc ccagccctac tcgaaataag tggtagtatt tccatttagc ctttgagcaa 2760
 atcacttaac tcaaaggcgt tgtggctcta agattaaacg actttt 2805

<210> 21
 <211> 6450
 <212> DNA
 <213> Human

<400> 21
 gagttgtgcc tggagtgatg ttttaagccaa tgtcagggca aggcaacagt ccctggccgt 60
 cctccagcac ctttgtaatg catatgagct cgggagacca gtacttaaag ttggaggccc 120

IMMC 143 PCT.US.ST25.txt

gggagcccag gagctggcgg agggcggttcg tcctgggagc tgcacttgct ccgtcgggtc	180
gccggcttca ccggaccgca ggctcccggg gcagggccgg ggccagagct cgcgtgtcgg	240
cgggacatgc gctgcgtcgc ctctaaccctc gggctgtgct ctttttccag gtggcccgcc	300
ggtttctgag ccttctgccc tgcggggaca cggctctgcac cctgcccgcg gccacggacc	360
atgaccatga ccctccacac caaagcatct gggatggccc tactgcatca gatccaaggg	420
aacgagctgg agccccctgaa ccgtccgcag ctcaagatcc ccctggagcg gccccctggc	480
gaggtgtacc tggacagcag caagcccgcc gtgtacaact accccgaggg cgccgcctac	540
gagttcaacg ccgcggccgc cgccaacgcg cagggtctacg gtcagaccgg cctcccctac	600
ggccccgggt ctgaggctgc ggcgttcggc tccaacggcc tgggggggtt cccccactc	660
aacagcgtgt ctccgagccc gctgatgcta ctgcacccgc cgccgcagct gtcgcctttc	720
ctgcagcccc acggccagca ggtgccctac tacctggaga acgagcccag cggctacacg	780
gtgcgcgagg ccggccccgcc ggcattctac aggccaaatt cagataatcg acgccaggg	840
ggcagagaaa gattggccag taccaatgac aagggaaagta tggctatgga atctgccaa	900
gagactcgct actgtgcagt gtgcaatgac tatgcttcag gctaccatta tggagtctgg	960
tcctgtgagg gctgcaaggc cttcttcaag agaagtattc aaggacataa cgactatatg	1020
tgtccagcca ccaaccagtg caccattgat aaaaacagga ggaagagctg ccaggcctgc	1080
cggctccgca aatgctacga agtgggaatg atgaaagggt ggatacgaaa agaccgaaga	1140
ggagggagaa tgttgaaaca caagcgccag agagatgatg gggagggcag gggatgaagt	1200
gggtctgctg gagacatgag agctgccaac ctttggccaa gcccgtcat gatcaaacgc	1260
tctaagaaga acagcctggc cttgtccctg acggccgacc agatggtcag tgccttggtg	1320
gatgctgagc cccccatact ctattccgag tatgatccta ccagaccctt cagtgaagct	1380
tcgatgatgg gcttactgac caacctggca gacagggagc tggttcacat gatcaactgg	1440
gcgaagaggg tgccaggctt tgtggatttg accctccatg atcagggtcca ccttctagaa	1500
tgtgcctggc tagagatcct gatgattggc ctgcgtctggc gctccatgga gcacccagt	1560
aagctactgt ttgctcctaa cttgctcttg gacaggaacc agggaaaatg tgtagagggc	1620
atggtggaga tcttcgacat gctgctggct acatcatctc ggttccgcat gatgaatctg	1680
cagggagagg agtttgtgtg cctcaaactc attattttgc ttaattctgg agtgtacaca	1740
tttctgtcca gcaccctgaa gtctctggaa gagaaggacc atatccaccg agtcctggac	1800
aagatcacag acactttgat ccacctgatg gccaaaggcag gcctgaccct gcagcagcag	1860
caccagcggc tggccagct cctcctcatc ctctcccaca tcaggcacat gagtaacaaa	1920
ggcatggagc atctgtacag catgaagtgc aagaacgtgg tgcccctcta tgacctgctg	1980
ctggagatgc tggacgcccc ccgcctacat gcgcccacta gccgtggagg ggcacccgtg	2040

IMMC 143 PCT.US.ST25.txt

gaggagacgg	accaaagcca	cttggccact	gcgggctcta	cttcatcgca	ttccttgcaa	2100
aagtattaca	tcacggggga	ggcagagggg	ttccctgcca	cagtctgaga	gctccctggc	2160
tcccacacgg	ttcagataat	ccctgctgca	ttttaccctc	atcatgcacc	acttttagcca	2220
aattctgtct	cctgcataca	ctccggcatg	catccaacac	caatggcttt	ctagatgagt	2280
ggccattcat	ttgcttgctc	agttcttagt	ggcacatctt	ctgtcttctg	ttgggaacag	2340
ccaaagggat	tccaaggcta	aatcttttga	acagctctct	ttcccccttg	ctatgttact	2400
aagcgtgagg	attcccgtag	ctcttcacag	ctgaactcag	tctatggggt	ggggctcaga	2460
taactctgtg	catttaagct	acttgtagag	acccaggcct	ggagagtaga	cattttgcct	2520
ctgataagca	ctttttaaat	ggctctaaga	ataagccaca	gcaaagaatt	taaagtggct	2580
cctttaattg	gtgacttgga	gaaagctagg	tcaaggggtt	attatagcac	cctcttgat	2640
tcctatggca	atgcatcctt	ttatgaaagt	ggtacacctt	aaagctttta	tatgactgta	2700
gcagagtatc	tggtgattgt	caattcactt	ccccctatag	gaatacaagg	ggccacacag	2760
ggaaggcaga	tcccctagtt	ggccaagact	tattttaact	tgatacactg	cagattcaga	2820
gtgtcctgaa	gctctgcctc	tggctttccg	gtcatggggt	ccagttaatt	catgcctccc	2880
atggacctat	ggagagcaac	aagttgatct	tagttaagtc	tccctatatg	agggataagt	2940
tcctgatttt	tgtttttatt	tttgtgttac	aaaagaaagc	cctccctccc	tgaacttgca	3000
gtaaggtcag	cttcaggacc	tgttccagtg	ggcactgtac	ttggatcttc	ccggcgtgtg	3060
tgtgccttac	acaggggtga	actgttcact	gtgggtgatgc	atgatgaggg	taaatggtag	3120
ttgaaaggag	caggggccct	ggtgttgcat	ttagccctgg	ggcatggagc	tgaacagtac	3180
ttgtgcagga	ttgttggtgc	tactagagaa	caagagggaa	agtagggcag	aaactggata	3240
cagttctgag	cacagccaga	cttgctcagg	tggccctgca	caggctgcag	ctacctagga	3300
acattccttg	cagaccccg	attgcctttg	ggggtgccct	gggatccctg	gggtagtcca	3360
gctcttattc	atttcccagc	gtggccctgg	ttggaagaag	cagctgtcaa	gttgtagaca	3420
gctgtgttcc	tacaattggc	ccagcacctt	ggggcacggg	agaagggtgg	ggaccgttgc	3480
tgtcactact	caggctgact	ggggcctggt	cagattacgt	atgcccttgg	tggttttagag	3540
ataatccaaa	atcaggggtt	ggtttgggga	agaaaatcct	cccccttcct	cccccgcccc	3600
gttccctacc	gcctccactc	ctgccagctc	atttccttca	atttcctttg	acctataggc	3660
taaaaaagaa	aggctcattc	cagccacagg	gcagccttcc	ctgggccttt	gcttctctag	3720
cacaattatg	ggttacttcc	tttttcttaa	caaaaaagaa	tgtttgattt	cctctgggtg	3780
accttattgt	ctgtaattga	aaccctattg	agagggtgatg	tctgtgttag	ccaatgaccc	3840
aggtagctgc	tcgggcttct	cttggtatgt	cttgtttgga	aaagtggatt	tcattcattt	3900

ctgattgtcc agttaagtga tcaccaaagg actgagaatc tgggagggca aaaaaaaaaa	3960
aaaaagtttt tatgtgcact taaatttggg gacaatttta tgtatctgtg ttaaggatat	4020
gcttaagaac ataattcttt tgttgctggt tgtttaagaa gcaccttagt ttgtttaaga	4080
agcaccttat atagtataat atatattttt ttgaaattac attgcttggt tatcagacaa	4140
ttgaatgtag taattctgtt ctggatttaa tttgactggg ttaacatgca aaaaccaagg	4200
aaaaatattt agtttttttt ttttttttg tatacttttc aagctacctt gtcattgtata	4260
cagtcattta tgcctaaagc ctggtgatta ttcatttaaa tgaagatcac atttcatatc	4320
aacttttgta tccacagtag acaaaatagc actaatccag atgcctattg ttggatattg	4380
aatgacagac aatcttatgt agcaaagatt atgcctgaaa aggaaaaatta ttcagggcag	4440
ctaattttgc ttttaccaa atatcagtag taatattttt ggacagtagc taatgggtca	4500
gtgggttctt tttaatgttt atacttagat tttcttttaa aaaaattaaa ataaaacaaa	4560
aaaaatttct aggactagac gatgtaatac cagctaaagc caaacaatta tacagtggaa	4620
ggttttacat tattcatcca atgtgtttct attcatgtta agatactact acatttgaag	4680
tgggcagaga acatcagatg attgaaatgt tcgcccaggg gtctccagca actttggaaa	4740
tctctttgta tttttacttg aagtgccact aatggacagc agatattttc tggctgatgt	4800
tggtattggg tgtaggaaca tgatttaaaa aaaaaactct tgcctctgct tccccact	4860
ctgaggcaag ttaaaatgta aaagatgtga tttatctggg gggctcaggt atggtgggga	4920
agtggattca ggaatctggg gaatggcaaa tatattaaga agagtattga aagtatttgg	4980
aggaaaatgg ttaattctgg gtgtgcacca aggttcagta gagtccactt ctgccctgga	5040
gaccacaaat caactagctc catttacagc catttctaaa atggcagctt cagttctaga	5100
gaagaaagaa caacatcagc agtaaagtcc atggaatagc tagtggtctg tgtttctttt	5160
cgccattgcc tagcttgccg taatgattct ataatgccat catgcagcaa ttatgagagg	5220
ctaggtcatc caaagagaag accctatcaa tgtaggttg ccaaatctaac ccctaaggaa	5280
gtgcagtctt tgatttgatt tccctagtaa ccttgcatg atgtttaacc aagccatagc	5340
ccatgccttt tgagggctga acaaataagg gacttactga taatttactt ttgatcacat	5400
taagggtgtt tcaccttgaa atcttataca ctgaaatggc cattgattta ggccactggc	5460
ttagagtact ctttcccctg catgacactg attacaaata ctttcttatt catactttcc	5520
aattatgaga tggactgtgg gtactgggag tgatcactaa caccatagta atgtctaata	5580
ttcacaggca gatctgcttg gggaaagctag ttatgtgaaa ggcaaataaa gtcatacagt	5640
agctcaaaag gcaaccataa ttctcttttg tgcaagtctt gggagcgtga tctagattac	5700
actgcaccat tccaagtta atcccctgaa aacttactct caactggagc aaatgaactt	5760
tggtcccaaa tatccatctt ttcagtagcg ttaattatgc tctgtttcca actgcatttc	5820

IMMC 143 PCT.US.ST25.txt

ctttccaatt gaattaaagt gtggcctcgt ttttagtcat ttaaaaattgt tttctaagta	5880
attgctgcct ctattatggc acttcaattt tgcactgtct tttgagattc aagaaaaatt	5940
tctattcatt tttttgcatc caattgtgcc tgaactttta aaatatgtaa atgctgccat	6000
gttccaaacc catcgtcagt gtgtgtgttt agagctgtgc accctagaaa caacatactt	6060
gtcccatgag cagggtgcctg agacacagac ccctttgcat tcacagagag gtcattgggt	6120
atagagactt gaattaataa gtgacattat gccagtttct gttctctcac aggtgataaa	6180
caatgctttt tgtgcactac atactcttca gtgtagagct cttgttttat gggaaaaggc	6240
tcaaatgcc aattgtgttt gatggattaa tatgcccttt tgccgatgca tactattact	6300
gatgtgactc gggtttgtcg cagctttgct ttgtttaatg aaacacactt gtaaacctct	6360
tttgcacttt gaaaaagaat ccagcgggat gctcgagcac ctgtaaaca ttttctcaac	6420
ctatttgatg ttcaaataaa gaattaaact	6450

<210> 22
 <211> 2745
 <212> DNA
 <213> Human

<400> 22	
ctcggctcttt aaaaggaaga aggggcttat cgtaaagtcg cttgtgatct tttttcagtt	60
tctccagctg ctggcttttt ggacacccac tccccgcca ggaggcagtt gcaagcgcg	120
aggctgcgag aaataactgc ctcttgaaac ttgcagggcg aagagcaggc ggcgagcgct	180
gggccgggga gggaccaccc gagctgcgac gggctctggg gctgcggggc agggctggcg	240
cccggagcct gagctgcagg aggtgcgctc gctttcctca acagggtggcg gcggggcgcg	300
cgccgggaga cccccctaa tgcgggaaaa gcacgtgtcc gcattttaga gaaggcaagg	360
ccggtgtgtt tatctgcaag ccattatact tgcccacgaa tctttgagaa cattataatg	420
acctttgtgc ctcttcttgc aagggtgttt ctcagctgtt atctcaagac atggatataa	480
aaaactcacc atctagcctt aattctcctt cctcctacaa ctgcagtcaa tccatcttac	540
ccctggagca cggctccata tacatacctt cctcctatgt agacagccac catgaatatc	600
cagccatgac attctatagc cctgctgtga tgaattacag cattcccagc aatgtcacta	660
acttggaagg tgggcctggt cggcagacca caagcccaaa tgtgttggtg ccaacacctg	720
ggcacctttc tccttttagtg gtccatcgcc agttatcaca tctgtatgcg gaacctcaaa	780
agagtccctg gtgtgaagca agatcgctag aacacacctt acctgtaaag agagagacac	840
tgaaaaggaa ggtagtggtg aaccgttgcg ccagccctgt tactgggtcca gggtcaaaga	900
gggatgctca cttctgcgct gtctgcagcg attacgcac gggatatcac tatggagtct	960
ggtcgtgtga aggatgtaag gcctttttta aaagaagcat tcaaggacat aatgattata	1020

IMMC 143 PCT.US.ST25.txt

```

tttgtccagc tacaaatcag tgtacaatcg ataaaaaccg gcgcaagagc tgccaggcct 1080
gccgacttcg gaagtgttac gaagtgggaa tgggtgaagtg tggctcccgg agagagagat 1140
gtgggtaccg ccttgtgcgg agacagagaa gtgccgacga gcagctgcac tgtgccggca 1200
aggccaagag aagtggcggc cacgcgcccc gagtgcggga gctgctgctg gacgccctga 1260
gccccgagca gctagtgtc accctcctgg aggctgagcc gccccatgtg ctgatcagcc 1320
gccccagtgc gcccttcacc gaggcctcca tgatgatgtc cctgaccaag ttggccgaca 1380
aggagtgggt acacatgatc agctgggcca agaagattcc cggctttgtg gagctcagcc 1440
tgttcgacca agtgcggctc ttggagagct gttggatgga ggtgttaatg atggggctga 1500
tgtggcgctc aattgaccac cccggcaagc tcacttttgc tccagatctt gttctggaca 1560
gggatgaggg gaaatgcgta gaaggaattc tggaaatctt tgacatgctc ctggcaacta 1620
cttcaagggtt tcgagagtta aaactccaac acaaagaata tctctgtgtc aaggccatga 1680
tcctgtctaa ttccagtatg taccctctgg tcacagcgac ccaggatgct gacagcagcc 1740
ggaagctggc tcacttgctg aacgccgtga ccgatgcttt ggtttgggtg attgccaaga 1800
gcggcatctc ctcccagcag caatccatgc gcctggctaa cctcctgatg ctccctgtccc 1860
acgtcaggca tgcgagctct ctctactct cttggagatt gtttatgctg aggggaagcca 1920
gctgccatgg tgtgaggcag actcctggag gagcccacat gtctgtaagt agaagcagat 1980
cttttgaggc ctgtcaacag ccacgggaat gagcttgga gacagatccca cctcctccct 2040
cacacaagtc gagccttcag atgagcctgc agcctttgtc gacaccttga ctgcattctc 2100
atgagagacc ttgagccaga gatacttagc taagccatgc ccatggactc ctgaccaca 2160
gaaactgtga taataagttt gttgtttcaa gctgctaact tatggagtaa tatgttacac 2220
aaaaatagct aatatatagc tcaaaactgg aagcaacca aatatctatt aactggtaga 2280
taaacaaact actcatttcc aaacttattt ccaaaactgg aacactactt ggcaatcaaa 2340
taattaacta tgcattaagt gtaacaacct ggatgaatct caaaggcatt atgttaagtg 2400
aaacaagtga gccacgtaag actacatact gtttgattcc ctctatatga tattctagaa 2460
aaggcaaaac tatagtaata ggaaacagtg agtgatcacc taggggtgaa gacaggtgaa 2520
aggggattga ctgcaaagag gcaggaggaa acgtcttggg agatggagat gttccttata 2580
ttgatggcgg tgggtgttac acaactgcac ttttatcaaa acttacctaa ctgctactta 2640
aaatagggtg attaatattt ttactgtatg taaattatac ctcaataaat ttgatttaaa 2700
aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa 2745

```

<210> 23
<211> 1101
<212> DNA

<213> Human

<400> 23

ccggaagtgc	tgcgagccct	gggccacgct	ggccgtgctg	gcagtgggcc	gcctcgatcc	60
ctctgcagtc	tttcccttga	ggctccaaga	ccagcagggtg	aggcctcgcg	gcgctgaaac	120
cgtgaggccc	ggaccacagg	ctccagatgg	accctgggaa	ggacaaagag	ggggtgcccc	180
agccctcagg	gccgccagca	aggaagaaat	ttgtgatacc	cctcgacgag	gatgagggtcc	240
ctcctggagt	ggccaagccc	ttattccgat	ctacacagag	ccttcccact	gtggacacct	300
cggcccaggc	ggccccctcag	acctacgccg	aatatgccat	ctcacagcct	ctggaagggg	360
ctggggccac	gtgccccaca	gggtcagagc	ccctggcagg	agagacgccc	aaccaggccc	420
tgaaaccccg	ggcaaaatcc	aacagcatca	ttgtgagccc	tcggcagagg	ggcaatcccc	480
tactgaagtt	cgtgcgcaat	gtgccctggg	aatttggcga	cgtaattccc	gactatgtgc	540
tgggccagag	cacctgtgcc	ctgttcctca	gcctccgcta	ccacaacctg	cacccagact	600
acatccatgg	gcggctgcag	agcctgggga	agaacttcgc	cttgcgggtc	ctgcttgtcc	660
aggtggatgt	gaaagatccc	cagcaggccc	tcaaggagct	ggctaagatg	tgtatcctgg	720
ccgactgcac	attgatcctc	gcctggagcc	ccgagggaagc	tgggcggtac	ctggagacct	780
acaaggccta	tgagcagaaa	ccagcggacc	tcctgatgga	gaagctagag	caggacttcg	840
tctcccgggt	gactgaatgt	ctgaccaccg	tgaagtcagt	caacaaaacg	gacagtcaga	900
ccctcctgac	cacatttgga	tctctggaac	agctcatcgc	cgcatacaaga	gaagatctgg	960
ccttatgccc	aggcctgggc	cctcagaaaag	cccggaggct	gtttgatgtc	ctgcacgagc	1020
ccttcttgaa	agtaccctga	tgaccccagc	tgccaaggaa	acccccagtg	taataataaa	1080
tcgtcctccc	aggccaggct	c				1101

<210> 24

<211> 2651

<212> DNA

<213> Human

<400> 24

tctttttctt	ttttttttaa	gaaaaactag	tgacattgca	gagaaggacg	cttcctctct	60
atcttttggc	gcattagtga	agggggtatt	ctattttgtt	aaagcgccca	agggggcgca	120
gggaccttgg	agagaagagt	ggggaggaaa	gaggaagggt	gggtgggggg	cagagggcga	180
gtcggcgggc	gcgagggcaa	gctctttctt	gcggcacgat	gccgtctctg	ctggtgctca	240
ctttctcccc	gtgcgtacta	ctcggtggg	cgttgctggc	cggcggcacc	ggtggcggtg	300
gcgttgggcg	cggcggcggt	ggcggggca	taggcggcg	acgccaggag	agagaggcgc	360
tgccgccaca	gaagatcgag	gtgctgggtg	tactgcccc	ggatgactcg	tacttgtttt	420
cactcaccgc	ggtgcggccg	gccatcgagt	atgctctgcg	cagcgtggag	ggcaacggga	480

IMMC 143 PCT.US.ST25.txt

ctgggaggcg gcttctgccg ccgggcactc gcttccaggt ggcttacgag gattcagact	540
gtgggaaccg tgcgctcttc agcttggtgg accgcgtggc ggcggcgcgg ggcgccaagc	600
cagaccttat cctggggcca gtgtgcgagt atgcagcagc gccagtggcc cggcttgcat	660
cgactggga cctgccccatg ctgtcggctg gggcgctggc cgctggcttc cagcacaagg	720
actctgagta ctcgcacctc acgcgcgtgg cgcgcgccta cgccaagatg ggcgagatga	780
tgctcgccct gttccgccac caccactgga gccgcgtgc actggtctac agcgacgaca	840
agctggagcg gaactgctac ttcacccctcg agggggtcca cgaggcttcc caggaggagg	900
gtttgcacac gtccatctac agtttcgacg agaccaaaga cttggatctg gaagacatcg	960
tgcgcaatat ccaggccagt gagagagtgg tgatcatgtg tgcgagcagt gacaccatcc	1020
ggagcatcat gctggtggcg cacaggcatg gcatgaccag tggagactac gccttcttca	1080
acattgagct cttcaacagc tcttcctatg gagatggctc atggaagaga ggagacaaac	1140
acgactttga agctaagcaa gcatactcgt ccttcagac agtcactcta ctgaggacag	1200
tgaaacctga gtttgagaag ttttccatgg aggtgaaaag ttcagttgag aaacaagggc	1260
tcaatatgga ggattacgtt aacatgtttg ttgaaggatt ccacgatgcc atcctcctct	1320
acgtcttggc tctacatgaa gtactcagag ctggttacag caaaaaggat ggagggaaaa	1380
ttatacagca gacttggaac agaacatttg aaggatatcg cgggcagggtg tccatagatg	1440
ccaacggaga ccgatatggg gatttctctg tgattgccat gactgatgtg gaggcgggca	1500
cccaggaggt tattggtgat tattttggaa aagaagggtcg ttttgaaatg cggccgaatg	1560
tcaaatatcc ttggggccct ttaaaaactga gaatagatga aaaccgaatt gtagagcata	1620
caaacagctc tccctgcaaa tcatgtggcc tagaagaatc ggcagtgaca ggaattgtcg	1680
tgggggcttt actaggagct ggcttgctaa tggccttcta ctttttcagg aagaaataca	1740
gaataaccat tgagaggcga acccagcaag aagaaagtaa ccttggaata catcgggaat	1800
tacgggaaga ttccatcaga tcccattttt cagtagctta aaggaagccc cccacttttt	1860
tttttctgc ctgagattct ttaaggagat agacggggtg aaagacatca atgaaacaga	1920
aggggcgttc ttgaagaatt cataatttta agcagttagt aatttcattt taaaatttct	1980
gtagaagctc aggaattatg attaatcacc atctgcctcc aggcctttca tctcatgaca	2040
aacaaatata ataatgatat cgtgtcactc tgtaaagtgt tcatactgtt tcaagcccat	2100
atgattagat ttatgttttt aaaatctgtt gtctccatat cttgatggct tttgggagca	2160
tttcacacaa ggatataaaa tgcgggtttc ttaaatgaaa tgttttgtag ctagaataaa	2220
atcattttta caagtacagc attcttggaag agaatttaac acccaaaaag gggaaaatgt	2280
aatgaaaaat ctcaagggtg gaaatacagc cttactctct ctagagctgg aggacaggtt	2340

IMMC 143 PCT.US.ST25.txt

tgtggttgag gacttctctg tccgatgtct acattcaggt tctgacttca tatcttgaaa	2400
aaggatttcc tccctgtctt ttccagtgtc tcataaacgc tactctggat tggttgtaa	2460
attagtgaga tgggaggatt tacagaagaa aagcaagtca aaaatatttc ctttttgatg	2520
taaaaaaaaa aagccctatt tcgcactaac attttatttt acaagtattt taatcttata	2580
ttttggtatt agaaaaattt gtctattttt tcattttgaa gattaaatgt tgcttacatt	2640
ttaaaaaaaa a	2651

<210> 25
 <211> 2363
 <212> DNA
 <213> Human

<400> 25	
tcgagcccg	60
aggcccccacg ccaccgcctc tgcctccagg ccgcccgcctg ctgcggggcc accatgctcc	120
tgcccaggcc tggagactga cccgaccccg gcactacctc gaggtctccg cccacactgc	180
tggaccccag ggtaaggaca agggccccc gactcacagt tccagccctg aggacagggg	240
ttccctcatc cccccaccca gcctaattgcc cacctcctaa tagaggggtt cctggggacc	300
tgaagagggg gcactatgac gtctcccaa gcacctagggt gttctgtcct gctcttcctt	360
cagactcagc cgttggaccc cagtcctttc ctccccagac ccaggagttc cagccctcag	420
gcccctcctc cctcatacta gggagtcctg gcccccaa tctcctttc ccaagactta	480
tgatttcagg tcctcagctg tctcctcct caaaccggga tcctcagtc cctgctccac	540
caggctcagg catgggggtc cccatccctg caaatccagg cgtccccccg ctgctggtca	600
gacactgacc ccattccttga acccagccca atctgcgtcc gtgatcacgg cgtgctctgg	660
ccaaggccca gtccctacag cctgcctgga tggacgcctg ggactggggg cgccaggact	720
gggctgggct gggctcccc aggcctgcc tccccgtcca tctcctcaca ggtcccaccc	780
tggcccagga ggtcagccag ggaatcatta acaagaggca gtgacatggc gcagaaggag	840
ggtggccgga ctgtgccatg ctgtccaga cccaagggtg cagctctcac tgcggggacc	900
ctgtacttgc tgacagccat cggggcgcca tcctgggcca ttgtggctgt tctcctcagg	960
agtgaccagg agccgctgta cccagtgcag gtcagctctg cgacgctcg gctcatggtc	1020
tttgacaaga cggaaggggac gtggcggtg ctgtgctcct cgcgctcaa cgccagggtta	1080
gccggactca gctgcgagga gatgggcttc ctacagggcac tgaccactc cgagctggac	1140
gtgcgaacgg cgggcgcaa tggcacgtcg ggcttcttct gtgtggacga ggggaggctg	1200
ccccacaccc agaggctgct ggaggtcatc tccgtgtgtg attgccccag aggccgtttc	1260
ttggccgcca tctgccaaga ctgtggccgc aggaagctgc ccgtggaccg catcgtggga	1320

IMMC 143 PCT.US.ST25.txt

```

ggccgggaca ccagcttggg ccggtggccg tggcaagtca gccttcgcta tgatggagca 1380
cacctctgtg ggggatccct gctctccggg gactgggtgc tgacagccgc ccactgcttc 1440
ccggagcgga accgggtcct gtcccgatgg cgagtgtttg ccggtgccgt ggcccaggcc 1500
tctccccacg gtctgcagct ggggggtgcag gctgtggtct accacggggg ctatcttccc 1560
tttcgggacc ccaacagcga ggagaacagc aacgatattg ccctggtcca cctctccagt 1620
cccctgcccc tcacagaata catccagcct gtgtgcctcc cagctgccgg ccaggccctg 1680
gtggatggca agatctgtac cgtgacgggc tggggcaaca cgcagtacta tggccaacag 1740
gccggggtac tccaggaggc tcgagtcccc ataatcagca atgatgtctg caatggcgct 1800
gacttctatg gaaaccagat caagcccaag atgttctgtg ctggctaccc cgaggggtggc 1860
attgatgcct gccagggcga cagcgggtgt ccctttgtgt gtgaggacag catctctcgg 1920
acgccacgtt ggcggctgtg tggcattgtg agttggggca ctggctgtgc cctggcccag 1980
aagccaggcg tctacaccaa agtcagtgc ttccgggagt ggatcttcca ggccataaag 2040
actcactccg aagccagcgg catggtgacc cagctctgac cgggtggcttc tcgctgcgca 2100
gcctccaggg cccgaggtga tcccgggtgt gggatccacg ctgggcccag gatgggacgt 2160
ttttcttctt gggcccggtc cacaggtcca aggacaccct ccctccaggg tcctctcttc 2220
cacagtggcg ggcccactca gccccgagac caccacacct caccctcctg acccccatgt 2280
aaatattgtt ctgctgtctg ggactcctgt ctaggtgccc ctgatgatgg gatgctcttt 2340
aaataataaa gatggttttg att 2363

```

```

<210> 26
<211> 2855
<212> DNA
<213> Human

```

```

<400> 26
agcccaaac tcaccacctg gccgtggaca cctgtgtcag catgtgggac ctggttctct 60
ccatcgctt gtctgtgggg tgactgtgtg ccgtgcccct catccagtct cggattgtgg 120
gaggctggga gtgtgagaag cattcccaac cctggcagggt ggctgtgtac agtcatggat 180
gggcacactg tgggggtgtc ctggtgcacc cccagtgggt gctcacagct gccattgcc 240
taaagaagaa tagccagggtc tggctgggtc ggcacaacct gtttgagcct gaagacacag 300
gccagaggggt ccctgtcagc cacagcttcc cacacccgct ctacaatatg agccttctga 360
agcatcaaag ccttagacca gatgaagact ccagccatga cctcatgctg ctccgcctgt 420
cagagcctgc caagatcaca gatgttgtga aggtcctggg cctgcccacc caggagccag 480
cactggggac cacctgctac gcctcaggct ggggcagcat cgaaccagag gagttcttgc 540
gccccaggag tcttcagtgt gtgagcctcc atctcctgtc caatgacatg tgtgctagag 600

```

cttactctga gaaggtgaca gagttcatgt tgtgtgctgg gctctggaca ggtggtaaag	660
acacttgtgg ggggtattct ggggggtccac ttgtctgtaa tgggtgtgctt caaggtatca	720
catcatgggg ccctgagcca tgtgccctgc ctgaaaagcc tgctgtgtac accaaggtgg	780
tgcattaccg gaagtggatc aaggacacca tcgcagccaa cccctgagtg cccctgtccc	840
accctacct ctagtaaatt taagtccacc tcacgttctg gcatcacttg gcctttctgg	900
atgctggaca cctgaagctt ggaactcacc tggccgaagc tcgagcctcc tgagtcctac	960
tgacctgtgc tttctgggtg ggagtccagg gctgctagga aaaggaatgg gcagacacag	1020
gtgtatgcca atgtttctga aatgggtata atttcgtcct ctccttcgga aactggctg	1080
tctctgaaga cttctcgctc agtttcagtg aggacacaca caaagacgtg ggtgaccatg	1140
ttgtttgtgg ggtgcagaga tgggaggggt ggggcccacc ctggaagagt ggacagtgc	1200
acaaggtgga cactctctac agatcactga ggataagctg gagccacaat gcatgaggca	1260
cacacacagc aaggatgacg ctgtaaacad agcccacgct gtcctggggg cactgggaag	1320
cctagataag gccgtgagca gaaagaaggg gaggatcctc ctatgttgtt gaaggagggg	1380
ctagggggag aaactgaaag ctgattaatt acaggagggt tgttcagggt ccccaaacca	1440
ccgtcagatt tgatgatctc ctagcaggac ttacagaaat aaagagctat catgctgtgg	1500
tttattatgg tttgttacat tgatgggata catactgaaa tcagcaaaca aaacagatgt	1560
atagattaga gtgtggagaa aacagaggaa aacttgcagt tacgaagact ggcaacttgg	1620
ctttactaag ttttcagact ggcaggaagt caaacctatt aggtgagga ccttgtggag	1680
tgtagctgat ccagctgata gaggaactag ccagggtggg gcctttccct ttggatgggg	1740
ggcatatctg acagttattc tctccaagtg gagacttacg gacagcatat aattctccct	1800
gcaaggatgt atgataatat gtacaaagta attccaactg aggaagctca cctgatcctt	1860
agtgccaag gtttttactg ggggtctgta ggacgagtat ggagtacttg aataattgac	1920
ctgaagtcct cagacctgag gttccctaga gttcaaacag atacagcatg gtccagagtc	1980
ccagatgtac aaaaacaggg attcatcaca aatcccatct ttagcatgaa gggctctggca	2040
tggcccaagg cccaagtat atcaaggcac ttgggcagaa catgccaagg aatcaaatgt	2100
catctcccag gagttattca agggtgagcc ctttacttgg gatgtacagg ctttgagcag	2160
tgcagggtctg ctgagtcaac cttttattgt acaggggatg agggaaaggg agaggatgag	2220
gaagcccccc tggggatttg gtttggctt gtgatcagggt ggtctatggg gctatcccta	2280
caaagaagaa tccagaaata ggggcacatt gaggaatgat actgagccca aagagcattc	2340
aatcattgtt ttatttgcct tcttttcaca ccattggtga gggagggatt accaccctgg	2400
ggttatgaag atggttgaac accccacaca tagcaccgga gatatgagat caacagtttc	2460
ttagccatag agattcacag cccagagcag gaggacgctg cacaccatgc aggatgacat	2520

IMMC 143 PCT.US.ST25.txt

gggggatgcg	ctcgggattg	gtgtgaagaa	gcaaggactg	ttagaggcag	gctttatagt	2580
aacaagacgg	tggggcaaac	tctgatttcc	gtgggggaat	gtcatggtct	tgctttacta	2640
agttttgaga	ctggcaggta	gtgaaactca	ttaggctgag	aaccttgtgg	aatgcagctg	2700
accagctga	tagaggaagt	agccagggtg	gagcctttcc	cagtgggtgt	gggacatatc	2760
tggcaagatt	ttgtggcact	cctggttaca	gatactgggg	cagcaaataa	aactgaatct	2820
tgttttcaga	ccttaaaaaa	aaaaaaaaaa	aaaaa			2855

<210> 27
 <211> 4530
 <212> DNA
 <213> Human

<400> 27	
aattctcgag	ctcgtcgacc ggtcgacgag ctcgaggggtc gacgagctcg agggcgcgcg 60
cccgcccccc	acccctcgca gcaccccgcg ccccgcgccc tcccagccgg gtccagccgg 120
agccatgggg	ccggagccgc agtgagcacc atggagctgg cggccttgtg ccgctggggg 180
ctcctcctcg	ccctcttgcc ccccgagacc gcgagcacc aagtgtgcac cggcacagac 240
atgaagctgc	ggctcccctgc cagtcccagag acccacctgg acatgctccg ccacctctac 300
cagggctgcc	aggtggtgca gggaaacctg gaactcacct acctgcccac caatgccagc 360
ctgtccttcc	tgcaggatat ccaggagggtg cagggctacg tgctcatcgc tcacaaccaa 420
gtgaggcagg	tcccaactgca gaggctgcgg attgtgagag gcacccagct ctttgaggac 480
aactatgccc	tggccgtgct agacaatgga gacccgctga acaataccac ccctgtcaca 540
ggggcctccc	caggaggcct gcgggagctg cagcttcgaa gcctcacaga gatcttgaag 600
ggaggggtct	tgatccagcg gaacccccag ctctgctacc aggacacgat tttgtggaag 660
gacatcttcc	acaagaacaa ccagctggct ctcacactga tagacaccaa ccgctctcgg 720
gcctgccacc	cctgttctcc gatgtgtaag ggctcccgtc gctggggaga gagttctgag 780
gattgtcaga	gcctgacgcg cactgtctgt gccggtggct gtgcccgtg caagggggcca 840
ctgcccactg	actgctgcca tgagcagtgt gctgccggct gcacggggccc caagcactct 900
gactgcctgg	cctgcctcca cttaaccac agtggcatct gtgagctgca ctgcccagcc 960
ctggtcacct	acaacacaga cacgtttgag tccatgccc atcccagagg ccggtataca 1020
ttcggcgcca	gctgtgtgac tgctgtccc tacaactacc tttctacgga cgtgggatcc 1080
tgcaccctcg	tctgccccct gcacaaccaa gaggtgacag cagaggatgg aacacagcgg 1140
tgtgagaagt	gcagcaagcc ctgtgcccga gtgtgctatg gtctgggcat ggagcacttg 1200
cgagagggtga	gggcagttac cagtgccaat atccaggagt ttgctggctg caagaagatc 1260
tttgggagcc	tggcatttct gccggagagc tttgatgggg acccagcctc caacactgcc 1320

IMMC 143 PCT.US.ST25.txt

ccgctccagc	cagagcagct	ccaagtgttt	gagactctgg	aagagatcac	aggttaccta	1380
tacatctcag	catggccgga	cagcctgcct	gacctcagcg	tcttccagaa	cctgcaagta	1440
atccggggac	gaattctgca	caatggcgcc	tactcgctga	ccctgcaagg	gctgggcatc	1500
agctggctgg	ggctgcgctc	actgagggaa	ctgggcagtg	gactggccct	catccaccat	1560
aacacccacc	tctgcttcgt	gcacacggtg	ccctgggacc	agctctttcg	gaacccgcac	1620
caagctctgc	tccacactgc	caaccggcca	gaggacgagt	gtgtgggcga	gggcctggcc	1680
tgccaccagc	tgtgcgcccc	agggcactgc	tgggggtccag	ggccccacca	gtgtgtcaac	1740
tgcagccagt	tccttcgggg	ccaggagtg	gtggaggaat	gccgagtact	gcaggggctc	1800
cccagggagt	atgtgaatgc	caggcactgt	ttgccgtgcc	accctgagtg	tcagccccag	1860
aatggctcag	tgacctgttt	tggaccggag	gctgaccagt	gtgtggcctg	tgccccactat	1920
aaggaccctc	ccttctgcgt	ggcccgtgc	cccagcggtg	tgaaacctga	cctctcctac	1980
atgcccactc	ggaagtttcc	agatgaggag	ggcgcatgcc	agccttgccc	catcaactgc	2040
acccactcct	gtgtggacct	ggatgacaag	ggctgccccg	ccgagcagag	agccagccct	2100
ctgacgtcca	tcgtctctgc	ggtggttggc	attctgctgg	tcgtggtctt	gggggtggtc	2160
tttgggatcc	tcatcaagcg	acggcagcag	aagatccgga	agtacacgat	gcgggagactg	2220
ctgcaggaaa	cggagctggt	ggagccgctg	acacctagcg	gagcgatgcc	caaccaggcg	2280
cagatgcgga	tcctgaaaga	gacggagctg	aggaagggtga	aggtgcttgg	atctggcgct	2340
tttggcacag	tctacaaggg	catctggatc	cctgatgggg	agaatgtgaa	aattccagtg	2400
gccatcaaag	tgttgagggg	aaacacatcc	cccaaagcca	acaaagaaat	cttagacgaa	2460
gcatacgtga	tggctggtgt	gggctcccca	tatgtctccc	gccttctggg	catctgcctg	2520
acatccacgg	tgcagctggt	gacacagctt	atgccctatg	gctgcctctt	agaccatgtc	2580
cgggaaaacc	gcggacgcct	gggctcccag	gacctgctga	actggtgtat	gcagattgcc	2640
aaggggatga	gctacctgga	ggatgtgcgg	ctcgtacaca	gggacttggc	cgctcggaac	2700
gtgctggtca	agagtcccaa	ccatgtcaaa	attacagact	tcgggctggc	tcggctgctg	2760
gacattgacg	agacagagta	ccatgcagat	gggggcaagg	tgcccatcaa	gtggatggcg	2820
ctggagtcca	ttctccgccg	gcggttcacc	caccagagtg	atgtgtggag	ttatggtgtg	2880
actgtgtggg	agctgatgac	ttttggggcc	aaaccttacg	atgggatccc	agcccgggag	2940
atccctgacc	tgctggaaaa	gggggagcgg	ctgccccagc	cccccatctg	caccattgat	3000
gtctacatga	tcatgggtcaa	atgttggatg	attgactctg	aatgtcggcc	aagattccgg	3060
gagttggtgt	ctgaattctc	ccgcatggcc	agggaccccc	agcgctttgt	ggcatccag	3120
aatgaggact	tgggcccagc	cagtcccttg	gacagcacct	tctaccgctc	actgctggag	3180

IMMC 143 PCT.US.ST25.txt

gacgatgaca tggggggacct ggtggatgct gaggagtatc tggtagccca gcagggcttc 3240
ttctgtccag accctgcccc gggcgctggg ggcatgggcc accacaggca ccgcagctca 3300
tctaccagga gtggcggttg ggacctgaca ctagggtctg agccctctga agaggaggcc 3360
cccaggtctc cactggcacc ctccgaaggg gctggctccg atgtatttga tggtagacctg 3420
ggaatggggg cagccaaggg gctgcaaagc ctccccacac atgacccag ccctctacag 3480
cggtagactg agggacccac agtaccctg ccctctgaga ctgatggcta cgttgccccc 3540
ctgacctgca gccccagcc tgaatatgtg aaccagccag atgttcggcc ccagccccct 3600
tcgccccgag agggccctct gcctgctgcc cgacctgctg gtgccactct ggaaagggcc 3660
aagactctct ccccagggaa gaatggggtc gtcaaagacg tttttgcctt tgggggtgcc 3720
gtggagaacc ccgagtactt gacacccag ggaggagctg cccctcagcc ccaccctcct 3780
cctgccttca gcccagcctt cgacaacctc tattactggg accaggaccc accagagcgg 3840
ggggctccac ccagcacctt caaagggaca cctacggcag agaaccaga gtacctgggt 3900
ctggacgtgc cagtgtgaac cagaaggcca agtccgcaga agccctgatg tgtcctcagg 3960
gagcaggga ggcctgactt ctgctggcat caagagggtg gagggccctc cgaccacttc 4020
caggggaacc tgccatgcca ggaacctgtc ctaagggaacc ttccttcctg cttgagttcc 4080
cagatggctg gaaggggtcc agcctcgttg gaagagggaac agcactgggg agtctttgtg 4140
gattctgagg ccctgcccac tgagactcta ggggtccagt gatgccacag ccagcttg 4200
ccctttcctt ccagatcctg ggtactgaaa gccttaggga agctggcctg agaggggaag 4260
cggccctaag ggagtgtcta agaacaaaag cgacccattc agagactgtc cctgaaacct 4320
agtactgccc cccatgagga aggaacagca atgggtgtcag tatccaggct ttgtacagag 4380
tgcttttctg tttagttttt actttttttg ttttgttttt ttaaagacga aataaagacc 4440
caggggagaa tgggtgttgt atggggaggg aagtgtgggg ggtccttctc cacaccact 4500
ttgtccattt gcaaataat tttggaaaac 4530

<210> 28
<211> 1356
<212> DNA
<213> Human

<400> 28
ttctcccga accttccctt cgctccctcc cgccccccc agctcctagc ctccgactcc 60
ctccccccct cacgcccgcc ctctcgctt cgccgaacca aagtggatta attacacgct 120
ttctgtttct ctccgtgctg ttctctcccg ctgtgctgct gcccgcctct cgctgtcctc 180
tctccccctc gccctctctt cggccccccc ctttcacgtt cactctgtct ctcccactat 240
ctctgcccc ctctatcctt gatacaacag ctgacctcat ttcccatac cttttcccc 300

IMMC 143 PCT.US.ST25.txt

ccgaaaagta caacatctgg cccgccccag cccgaagaca gcccgtcctc cctggacaat 360
 cagacgaatt ctcccccccc ccccaaaaaa aaaagccatc cccccgtctt gccccgtcgc 420
 acattcggcc cccgcgactc ggccagagcg gcgctggcag aggagtgtcc ggcaggaggg 480
 ccaacgcccc ctgttcgggt tgcgacacgc agcagggagg tgggcggcag cgtcgccggc 540
 ttccagacac caatgggaat cccaatgggg aagtcgatgc tggtgcttct caccttcttg 600
 gccttcgcct cgtgctgcat tgctgcttac cgccccagtg agaccctgtg cggcggggag 660
 ctggtggaca ccctccagtt cgtctgtggg gaccgcggct tctacttcag caggccccga 720
 agccgtgtga gccgtcgag ccgtggcatc gttgaggagt gctgtttccg cagctgtgac 780
 ctggccctcc tggagacgta ctgtgctacc cccgccaaagt ccgagaggga cgtgtcgacc 840
 cctccgaccg tgcttccgga caacttcccc agataccccg tgggcaagtt cttccaatat 900
 gacacctgga agcagtccac ccagcgcctg cgcagggggc tgcttgcctt cctgcgtgcc 960
 cgccggggtc acgtgctcgc caaggagctc gaggcgttca gggaggccaa acgtcaccgt 1020
 cccctgattg ctctaccac ccaagacccc gccacgggg gcgccccccc agagatggcc 1080
 agcaatcga agtgagcaaa actgccgcaa gtctgcagcc cggcgccacc atcctgcagc 1140
 ctctcctga ccacggacgt ttccatcagg ttccatcccc aaaaatctctc ggttccacgt 1200
 cccctgggg cttctcctga cccagtcccc gtgccccgcc tccccgaaac aggctactct 1260
 cctcggcccc ctccatcggg ctgaggaagc acagcagcat cttcaaakat gtacaaaatc 1320
 gattggcttt aaacaccctt cacataccct ccccc 1356

<210> 29
 <211> 2830
 <212> DNA
 <213> Human

<400> 29
 ggacacctgt gtcagcatgt gggacctggt tctctccatc gccttgtctg tggggtgcac 60
 tgggtgccgtg cccctcatcc agtctcggat tgtgggaggc tgggagtgtg agaagcattc 120
 ccaaccctgg cagggtggctg tgtacagtca tggatgggca cactgtgggg gtgtcctggt 180
 gcacccccag tgggtgctca cagctgcca ttgcctaaag aagaatagcc aggtctggct 240
 gggtcggcac aacctgtttg agcctgaaga cacaggccag agggtccttg tcagccacag 300
 cttccacac ccgctctaca atatgagcct tctgaagcat caaagcctta gaccagatga 360
 agactccagc catgacctca tgctgtccg cctgtcagag cctgccaaga tcacagatgt 420
 tgtgaaggtc ctgggcctgc ccacccagga gccagcactg gggaccacct gctacgcctc 480
 aggctggggc agcatcgaac cagaggagtt cttgcgcccc aggagtcttc agtgtgtgag 540
 cctccatctc ctgtccaatg acatgtgtgc tagagcttac tctgagaagg tgacagagtt 600

IMMC 143 PCT.US.ST25.txt

catgtttgtgt gctgggctct ggacagggtgg taaagacact tgtgggggtg attctggggg	660
tccacttgtc tgtaatggtg tgcttcaagg tatcacatca tggggccctg agccatgtgc	720
cctgcctgaa aagcctgctg tgtacaccaa ggtggtgcat taccggaagt ggatcaagga	780
caccatcgca gccaacccct gagtgtcccct gtcccacccc tacctctagt aaatttaagt	840
ccacctcacg ttctggcatc acttggcctt tctggatgct ggacacctga agcttggaac	900
tcacctggcc gaagctcgag cctcctgagt cctactgacc tgtgctttct ggtgtggagt	960
ccagggtgctg tatgaaaagg aatgggcaga cacagggtgta tgccaatgtt tctgaaatgg	1020
gtataatttc gtcctctcct tcggaacact ggctgtctct gaagacttct cgctcagttt	1080
cagtgaggac acacacaaag acgtgggtga ccatgtttgtt tgtggggtgc agagatggga	1140
ggggtggggc ccaccctgga agagtggaca gtgacacaag gtggacactc tctacagatc	1200
actgaggata agctggagcc acaatgcatg aggcacacac acagcaagga tgacgctgta	1260
aacatagccc acgctgtcct gggggcactg ggaagcctag ataaggccgt gagcagaaag	1320
aaggggagga tcctcctatg ttgttgaagg agggactagg gggagaaact gaaagctgat	1380
taattacagg aggtttgttc aggtcccca aaccaccgtc agatttgatg atttcctagc	1440
aggacttaca gaaataaaga gctatcatgc tgtggtttat tatggtttgt tacattgatg	1500
ggatacatat tgaaatcagc aaacaaaaca gatgtataga ttagagtgtg gagaaaacag	1560
aggaaaactt gcagttacga agactggcaa cttggcttta ctaagttttc agactggcag	1620
gaagtcaaac ctattaggct gaggaccttg tggagtgtag ctgatccagc tgatagagga	1680
actagccagg tgggggcctt tccctttgga tggggggcat atctgacagt tattctctcc	1740
aagtggagac ttacggacag catataattc tcctgcaag gatgtatgat aatatgtaca	1800
aagtaattcc aactgaggaa gctcacctga tccttagtgt ccaaggtttt tactgggggt	1860
ctgtaggacg agtatggagt acttgaataa ttgacctgaa gtcctcagac ctgaggttcc	1920
ctagagttca aacagataca gcatggtcca gagtcccaga tgtacaaaaa cagggtattca	1980
tcacaaatcc catcttttagc atgaagggtc tggcatggcc caaggcccca agtatatcaa	2040
ggcacttggg cagaacatgc caaggaatca aatgtcatct cccaggagtt attcaagggt	2100
gagcccttta cttgggatgt acaggctttg agcagtgcag ggctgctgag tcaacctttt	2160
attgtacagg ggatgagggg aaggggagagg atgaggaagc ccccctgggg atttggtttg	2220
gtcttgtgat cagggtgtct atggggctat ccctacaaag aagaatccag aaataggggc	2280
acattgagga atgatactga gcccaaagag cattcaatca ttgttttatt tgccttcttt	2340
tcacaccatt ggtgagggag ggattaccac cctggggtta tgaagatggt tgaacacccc	2400
acacatagca ccggagatat gagatcaaca gtttcttagc catagagatt cacagcccag	2460
agcaggagga cgctgcacac catgcaggat gacatggggg atgcgctcgg gattggtgtg	2520

IMMC 143 PCT.US.ST25.txt

aagaagcaag gactgttaga ggcaggcttt atagtaacaa gacggtgggg caaactctga 2580
tttccgtggg ggaatgtcat ggtcttgctt tactaagttt tgagactggc aggtagtga 2640
actcattagg ctgagaacct tgtggaatgc agctgaccca gctgatagag gaagtagcca 2700
ggtgggagcc tttcccagtg ggtgtgggac atatctggca agattttgtg gcactcctgg 2760
ttacagatac tggggcagca aataaaactg aatcttgttt tcagacctta aaaaaaaaaa 2820
aaaaaaaaa 2830

<210> 30
<211> 1202
<212> DNA
<213> Human

<400> 30
gcggccgctg cacagccatg cccgggcaag aactcaggac gctgaatggc tctcagatgc 60
tcctggtggt gctggtgctc tcgtggctgc cgcattgggg cgccctgtct ctggccgagg 120
cgagccgcgc aagtttcccg ggaccctcag agttgcacac cgaagactcc agattccgag 180
agttgcggaa acgctacgag gacctgctaa ccaggctgcy ggccaaccag agctgggaag 240
attcgaacac cgacctcgtc ccggccccctg cagtccggat actcacgcca gaagtgcggc 300
tgggatccgg cggccacctg cacctgcgta tctctcgggc cgcccttccc gaggggctcc 360
ccgaggcctc ccgccttcac cgggctctgt tccggctgtc cccgacggcg tcaaggctcgt 420
gggacgtgac acgacctctg cggcgctcagc tcagccttgc aagaccccag gcgcccgcgc 480
tgcacctgcy actgtcgccg ccgccgctgc agtcggacca actgctggca gaatcttcgt 540
ccgcacggcc ccagctggag ttgcacttgc ggccgcaagc cgccaggggg cgccgcagag 600
cgcgtgcgcg caacgggggac cactgtccgc tcggggcccg gcgttgctgc cgtctgcaca 660
cgggtccgcgc gtcgctggaa gacctgggct gggccgattg ggtgctgtcg ccacgggagg 720
tgcaagtgac catgtgcatc ggcgctgcc cgagccagtt ccgggcggca aacatgcacg 780
cgcagatcaa gacgagcctg caccgcctga agcccagac ggtgccagcg ccctgctgcy 840
tgcccgccag ctacaatccc atggtgctca ttcaaaagac cgacaccggg gtgtcgctcc 900
agacctatga tgacttgta gccaaagact gccactgcat atgagcagtc ctggctcctc 960
cactgtgcac ctgcgcgggg gagggcagct cagttgtcct gccctgtgga atgggctcaa 1020
ggttcctgag acacccgatt cctgccc aaa cagctgtatt tatataagtc tggtatttat 1080
tattaattta ttggggtgac cttcttgggg actcgggggc tggctctgat gaactgtgta 1140
tttatitaaa actctggtga taaaaataaa gctgtctgaa ctgttaaaaa aaaaaaaaaa 1200
aa 1202

IMMC 143 PCT.US.ST25.txt

<210> 31
 <211> 502
 <212> DNA
 <213> Human

<400> 31
 acagcggcctt ccttgatcct tgccacccgc gactgaacac cgacagcagc agcctcacca 60
 tgaagttgct gatggtcctc atgctggcgg ccctctccca gcaactgctac gcaggctctg 120
 gctgcccctt attggagaat gtgatttcca agacaatcaa tccacaagtg tctaagactg 180
 aatacaaaga acttcttcaa gagttcatag acgacaatgc cactacaaat gccatagatg 240
 aattgaagga atgttttctt aaccaaacgg atgaaactct gagcaatgtt gaggtgttta 300
 tgcaattaat atatgacagc agtctttgtg atttatttta actttctgca agacctttgg 360
 ctcacagaac tgcaggggat ggtgagaaac caactacgga ttgctgcaaa ccacaccttc 420
 tctttcttat gtctttttac taaaactac aagacaattg ttgaaacctg ctatacatgt 480
 ttattttaat aaattgatgg ca 502

<210> 32
 <211> 517
 <212> DNA
 <213> Human

<400> 32
 cctccacagc aacttccttg atccctgccg cgcacgactg aacacagaca gcagccgcct 60
 cgccatgaag ctgctgatgg tcctcatgct ggcggccctc ctctgcact gctatgcaga 120
 ttctggctgc aaactcctgg aggacatggt tgaaaagacc atcaattccg acatatctat 180
 acctgaatac aaagagcttc ttcaagagtt catagacagt gatgccgctg cagaggctat 240
 ggggaaattc aagcagtgtt tcctcaacca gtcacataga actctgaaaa actttggact 300
 gatgatgcat acagtgtacg acagcatttg gtgtaatatg aagagtaatt aactttaccc 360
 aaggcgtttg gctcagaggg ctacagacta tggccagaac tcactctgtg attgctagaa 420
 accacttttc tttcttgtgt tgtcttttta tgtggaaact gctagacaac tgttgaaacc 480
 tcaaattcat ttccatttca ataactaact gcaaatc 517

<210> 33
 <211> 3069
 <212> DNA
 <213> Human

<400> 33
 tgtttccgct gcatccagac ttcctcaggc ggtggctgga ggctgcgcat ctggggcctt 60
 aaacatacaa agggattgcc aggacctgcg gcggcgccgg cgccggcggg ggctggggcg 120
 cgggggcccgg accatgagcc gctgagccgg gcaaacccca ggccaccgag ccagcggacc 180
 ctcggagcgc agccctgcgc cgcggaccag gctccaacca ggccggcgagg cggccacacg 240

IMMC 143 PCT.US.ST25.txt

caccgagcca	gcgacccccg	ggcgacgcgc	ggggccaggg	agcgctacga	tggaggcgct	300
aatggccccg	ggcgcgctca	cgggtccccct	gagggcgctc	tgtctcctgg	gctgcctgct	360
gagccacgcc	gccgccgcgc	cgtcgcccac	catcaagtcc	cccggcgatg	tcgcccccaa	420
aacggacaaa	gagttggcag	tgcaatacct	gaacaccttc	tatggctgcc	ccaaggagag	480
ctgcaacctg	tttgtgctga	aggacacact	aaagaagatg	cagaagttct	ttggactgcc	540
ccagacaggt	gatcttgacc	agaataccat	cgagaccatg	cggaagccac	gctgcggcaa	600
cccagatgtg	gccaactaca	acttcttccc	tcgcaagccc	aagtgggaca	agaaccagat	660
cacatacagg	atcattggct	acacacctga	tctggaccca	gagacagtgg	atgatgcctt	720
tgctcgtgcc	ttccaagtct	ggagcgatgt	gacccactg	cggttttctc	gaatccatga	780
tggagaggca	gacatcatga	tcaactttgg	ccgctgggag	catggcgatg	gataccccct	840
tgacggtaag	gacggactcc	tggtcatgac	cttcgccccca	ggcactgggtg	ttgggggaga	900
ctccattttt	gatgacgatg	agctatggac	cttggggagaa	ggccaagtgg	tccgtgtgaa	960
gtatggcaac	gccgatgggg	agtactgcaa	gttcccccttc	ttgttcaatg	gcaaggagta	1020
caacagctgc	actgatactg	gccgcagcga	tggcttcctc	tggtgctcca	ccacctacaa	1080
ctttgagaag	gatggcaagt	acggcttctg	tccccatgaa	gccctgttca	ccatgggagg	1140
caacgctgaa	ggacagccct	gcaagtttcc	attccgcttc	cagggcacat	cctatgacag	1200
ctgcaccact	gagggccgca	cggatggcta	ccgctgggtgc	ggcaccactg	aggactacga	1260
ccgcgacaag	aagtatggct	tctgccctga	gaccgccatg	tccactgttg	gtgggaactc	1320
agaagggtgcc	ccctgtgtct	tccccctcac	tttcctgggc	aacaaatatg	agagctgcac	1380
cagcgccggc	cgcagtgcgc	gaaagatgtg	gtgtgcgacc	acagccaact	acgatgacga	1440
ccgcaagtgg	ggcttctgcc	ctgaccaagg	gtacagcctg	ttcctcgtgg	cagcccacga	1500
gtttggccac	gccatggggc	tggagcactc	ccaagaccct	ggggccctga	tggcaccat	1560
ttacacctac	accaagaact	tccgtctgtc	ccaggatgac	atcaagggca	ttcaggagct	1620
ctatggggcc	tctcctgaca	ttgaccttgg	caccggcccc	acccccacac	tggggccctgt	1680
cactcctgag	atctgcaaac	aggacattgt	atttgatggc	atcgctcaga	tccgtggtga	1740
gatcttcttc	ttcaaggacc	ggttcatttg	gcggactgtg	acgccacgtg	acaagccccat	1800
ggggccccctg	ctggtggcca	cattctggcc	tgagctcccc	gaaaagattg	atgcggtata	1860
cgaggcccca	caggaggaga	aggctgtgtt	ctttgcaggg	aatgaatact	ggatctactc	1920
agccagcacc	ctggagcgag	ggtaccccaa	gccactgacc	agcctgggac	tgccccctga	1980
tgtccagcga	gtggatgccg	cttttaactg	gagcaaaaac	aagaagacat	acatctttgc	2040
tggagacaaa	ttctggagat	acaatgaggt	gaagaagaaa	atggatcctg	gctttcccaa	2100

IMMC 143 PCT.US.ST25.txt

gctcatcgca gatgcctgga atgccatccc cgataacctg gatgccgtcg tggacctgca 2160
 gggcggcggt cacagctact tcttcaaggg tgcctattac ctgaagctgg agaaccaaaag 2220
 tctgaagagc gtgaagtttg gaagcatcaa atccgactgg ctaggctgct gagctggccc 2280
 tggctcccac agggcccttcc tctccactgc cttcgataca ccgggccttg agaactagag 2340
 aaggaccggg aggggccttg cagccgtgcc ttcagctcta cagctaataca gcattctcac 2400
 tcctacctgg taatttaaga ttccagagag tggctcctcc cggtgcccaa gaatagatgc 2460
 tgactgtact cctcccaggc gccccttccc cctccaatcc caccaaccct cagagccacc 2520
 cctaaagaga tcctttgata ttttcaacgc agccctgctt tgggctgccc tgggtgctgcc 2580
 acacttcagg ctcttctcct ttcacaacct tctgtggctc acagaaccct tggagccaat 2640
 ggagactgtc tcaagagggc actggtggcc cgacagcctg gcacagggca gtgggacagg 2700
 gcatggccag gtggccactc cagaccctg gcttttact gctggctgcc ttagaacctt 2760
 tcttacatta gcagtttgct ttgtatgcac tttgtttttt tctttgggtc ttgttttttt 2820
 tttccactta gaaattgcat ttctgacag aaggactcag gttgtctgaa gtcactgcac 2880
 agtgcattc agccacata gtgatggtc ccctgttcac tctacttagc atgtccctac 2940
 cgagtctctt ctccactgga tggaggaaaa ccaagccgtg gcttcccgtc cagccctccc 3000
 tgcccctccc ttcaaccatt ccccatggga aatgtcaaca agtatgaata aagacaccta 3060
 ctgagtggc 3069

<210> 34
 <211> 2334
 <212> DNA
 <213> Human

<400> 34
 agacacctct gccctcacca tgagcctctg gcagcccctg gtcctggtgc tcctggtgct 60
 gggctgctgc tttgctgccc ccagacagcg ccagtccacc cttgtgctct tccctggaga 120
 cctgagaacc aatctcaccg acaggcagct ggcagaggaa tacctgtacc gctatggtta 180
 cactcgggtg gcagagatgc gtggagagtc gaaatctctg gggcctgcgc tgctgcttct 240
 ccagaagcaa ctgtccctgc ccgagaccgg tgagctggat agcgccacgc tgaaggccat 300
 gcgaacccca cggtgcgggg tcccagacct gggcagattc caaacctttg agggcgacct 360
 caagtggcac caccacaaca tcacctattg gatccaaaac tactcggaag acttgccgcg 420
 ggcggtgatt gacgacgcct ttgcccgcgc cttgcactg tggagcgcgg tgacgccgt 480
 caccttact cgcggtgtaca gccgggacgc agacatcgct atccagtttg gtgtcgcgga 540
 gcacggagac gggatatccct tcgacgggaa ggacgggctc ctggcacacg cctttcctcc 600
 tggccccggc attcaggag acgcccattt cgacgatgac gagttgtggt ccctgggcaa 660

IMMC 143 PCT.US.ST25.txt

```

gggcgtcgtg gttccaactc ggttttgaaa cgcagatggc gcggcctgcc acttcccctt 720
catcttcgag ggccgctcct actctgcctg caccaccgac ggtcgctccg acggcttgcc 780
ctgggtgcagt accacggcca actacgacac cgacgaccgg tttggcttct gcccagcga 840
gagactctac acccgggacg gcaatgctga tgggaaaccc tgccagtttc cattcatctt 900
ccaaggccaa tcctactccg cctgcaccac ggacggctgc tccgacggct accgctggtg 960
cgccaccacc gccaaactacg accggggacaa gctcttcggc ttctgcccga cccgagctga 1020
ctcgacgggtg atggggggca actcggcggg ggagctgtgc gtcttcccct tcactttcct 1080
gggtaaggag tactcgacct gtaccagcga gggccgcgga gatgggcgcc tctggtgcgc 1140
taccacctcg aactttgaca gcgacaagaa gtggggcttc tgcccggacc aaggatacag 1200
tttgttcctc gtggcggcgc atgagttcgg ccacgcgctg ggcttagatc attcctcagt 1260
gccggaggcg ctcatgtacc ctatgtaccg cttcactgag gggccccctt tgcataagga 1320
cgacgtgaat ggcattccggc acctctatgg tcctcgccct gaacctgagc cacggcctcc 1380
aaccaccacc acaccgcagc ccacggctcc cccgacggtc tgccccaccg gacccccac 1440
tgtccacccc tcagagcgcc ccacagctgg cccacaggt cccccctcag ctggccccac 1500
aggtcccccc actgctggcc cttctacggc cactactgtg cctttgagtc cggtggacga 1560
tgcctgcaac gtgaacatct tcgacgccat cgcggagatt gggaaccagc tgtatttgtt 1620
caaggatggg aagtactggc gattctctga gggcaggggg agccggccgc agggcccctt 1680
ccttatcgcc gacaagtggc ccgcgctgcc ccgcaagctg gactcggctt ttgaggagcc 1740
gctctccaag aagcttttct tcttctctgg gcgccagggtg tgggtgtaca caggcgcgtc 1800
ggtgctgggc ccgaggcgtc tggacaagct gggcctggga gccgacgtgg cccaggtgac 1860
cggggccctc cggagtggca gggggaagat gctgctgttc agcgggcggc gcctctggag 1920
gttcgacgtg aaggcgcaga tggatggatcc ccggagcgcc agcgagggtg accggatgtt 1980
ccccggggtg cttttggaca cgcacgacgt cttccagtac cgagagaaag cctatttctg 2040
ccaggaccgc ttctactggc gcgtgagttc ccggagttag ttgaaccagg tggaccaagt 2100
gggctacgtg acctatgaca tcctgcagtg ccctgaggac tagggctccc gtcctgcttt 2160
gcagtgccat gtaaattccc actgggacca accctgggga aggagccagt ttgccggata 2220
caaactggta ttctgttctg gaggaaaggg aggagtggag gtgggctggg ccctctcttc 2280
tcacctttgt tttttgttgg agtgtttcta ataaacttgg attctctaac cttt 2334

```

```

<210> 35
<211> 5011
<212> DNA
<213> Human
<400> 35

```


ccaggcgggcg	ttgcgggcccc	ggccccggct	ccctgcgccc	ccgccgcccgc	cgccgcccgcc	60
gccgccgccc	ccgccgccag	cgctagcgcc	agcagccggg	cccgatcacc	cgccgcccgg	120
tgccccccgc	cgccccgcgc	agcaaccggg	cccgatcacc	cgccgcccgg	tgccccccgc	180
cgccccgcgc	accggcatgg	cgctccgggg	cttctgcagc	gccgatggct	ccgacccgct	240
ctgggactgg	aatgtcacgt	ggaataccag	caacccccgac	ttcaccaagt	gctttcagaa	300
cacggtcctc	gtgtgggtgc	cttgttttta	cctctggggc	tgtttcccct	tctacttcct	360
ctatctctcc	cgacatgacc	gaggctacat	tcagatgaca	cctctcaaca	aaacaaaaac	420
tgccctggga	tttttgctgt	ggatcgtctg	ctgggcagac	ctcttctact	ctttctggga	480
aagaagtcgg	ggcatattcc	tggccccagt	gtttctgggtc	agcccaactc	tcttgggcat	540
caccacgctg	cttgctacct	ttttaattca	gctggagagg	aggaagggag	ttcagtcctc	600
agggatcatg	ctcactttct	ggctggtagc	cctagtgtgt	gccctagcca	tcctgagatc	660
caaaattatg	acagccttaa	aagaggatgc	ccagggtggac	ctgtttctgtg	acatcacttt	720
ctacgtctac	ttttccctct	tactcattca	gctcgtcttg	tcctgtttct	cagatcgctc	780
accctgttc	tcggaaacca	tccacgaccc	taatccctgc	ccagagtcca	gcgcttcctt	840
cctgtcgagg	atcaccttct	ggtggatcac	agggttgatt	gtccggggct	accgccagcc	900
cctggagggc	agtgacctct	ggtccttaaa	caaggaggac	acgtcggaac	aagtcgtgcc	960
tgttttggta	aagaactgga	agaaggaatg	cgccaagact	aggaagcagc	cggtgaagg	1020
tgtgtactcc	tccaaggatc	ctgcccagcc	gaaagagagt	tccaagggtg	atgcgaatga	1080
ggaggtggag	gctttgatcg	tcaagtcccc	acagaaggag	tggaaccctt	ctctgtttaa	1140
ggtgttatac	aagacctttg	ggccctactt	cctcatgagc	ttcttcttca	aggccatcca	1200
cgacctgatg	atgttttccg	ggccgcagat	cttaaagttg	ctcatcaagt	tcgtgaatga	1260
cacgaaggcc	ccagactggc	agggctactt	ctacaccgtg	ctgctgtttg	tactgcctg	1320
cctgcagacc	ctcgtgctgc	accagtactt	ccacatctgc	ttcgtcagtg	gcatgaggat	1380
caagaccgct	gtcattgggg	ctgtctatcg	gaaggccctg	gtgatcacca	attcagccag	1440
aaaatcctcc	acggtcgggg	agattgtcaa	cctcatgtct	gtggacgctc	agaggttcat	1500
ggacttggcc	acgtacatta	acatgatctg	gtcagcccc	ctgcaagtca	tccttgctct	1560
ctacctctg	tggctgaatc	tgggcccttc	cgctctgggt	ggagtggcgg	tgatggctct	1620
catggtgccc	gtcaatgctg	tgatggcgat	gaagaccaag	acgtatcagg	tggcccatat	1680
gaagagcaaa	gacaatcgga	tcaagctgat	gaacgaaatt	ctcaatggga	tcaaagtgct	1740
aaagctttat	gcctgggagc	tggcattcaa	ggacaagggtg	ctggccatca	ggcaggagga	1800
gctgaagggtg	ctgaagaagt	ctgcctacct	gtcagccgtg	ggcaccttca	cctgggtctg	1860
cacgcccttt	ctgggtggcct	tgtgcacatt	tgccgtctac	gtgaccattg	acgagaacaa	1920

IMMC 143 PCT.US.ST25.txt

catcctggat	gcccagacag	ccttcgtgtc	tttggccttg	ttcaacatcc	tccggtttcc	1980
cctgaacatt	ctccccatgg	tcatacagcag	catcgtgcag	gcgagtgtct	ccctcaaacg	2040
cctgaggatc	tttctctccc	atgaggagct	ggaacctgac	agcatcgagc	gacggcctgt	2100
caaagacggc	gggggcacga	acagcatcac	cgtgaggaat	gccacattca	cctgggccag	2160
gagcgaccct	cccacactga	atggcatcac	cttctccatc	cccgaagggtg	ctttggtggc	2220
cgtggtgggc	caggtgggct	gcggaaagtc	gtccctgtct	tcagccctct	tggctgagat	2280
ggacaaagt	gaggggcacg	tggctatcaa	gggctccgtg	gcctatgtgc	cacagcaggc	2340
ctggattcag	aatgattctc	tccgagaaaa	catccttttt	ggatgtcagc	tggaggaacc	2400
atattacagg	tccgtgatac	aggcctgtgc	cctcctccca	gacctggaaa	tcctgcccag	2460
tggggatcgg	acagagattg	gcgagaaggg	cgtgaacctg	tctggggggc	agaagcagcg	2520
cgtgagcctg	gcccggggccg	tgtactccaa	cgctgacatt	tacctcttcg	atgatcccct	2580
ctcagcagt	gatgcccatt	tgggaaaaca	catctttgaa	aatgtgattg	gccccaaagg	2640
gatgctgaag	aacaagacgc	ggatcttgg	cacgcacagc	atgagctact	tgccgcagg	2700
ggacgtcatc	atcgtcatga	gtggcgga	gatctctgag	atgggctcct	accaggagct	2760
gctggctcga	gacggcgcct	tcgtgagtt	cctgcgtacc	tatgccagca	cagagcagga	2820
gcaggatgca	gaggagaacg	gggtcacggg	cgtcagcgg	ccaggaagg	aagcaaagca	2880
aatggagaat	ggcatgctgg	tgacggacag	tgcaggaag	caactgcaga	gacagctcag	2940
cagctcctcc	tcctatagt	gggacatcag	caggcaccac	aacagcaccg	cagaactgca	3000
gaaagctgag	gccaagaagg	aggagacctg	gaagctgatg	gaggctgaca	aggcgagac	3060
agggcaggtc	aagctttccg	tgtactggga	ctacatgaag	gccatcggac	tcttcattct	3120
cttcctcagc	atcttccttt	tcattgtgta	ccatgtgtcc	gcgctggctt	ccaactattg	3180
gctcagcctc	tggactgatg	accccatcgt	caacgggact	caggagcaca	cgaaagtccg	3240
gctgagcgtc	tatggagccc	tgggcatttc	acaagggatc	gccgtgtttg	gctactccat	3300
ggccgtgtcc	atcgggggga	tcttggtctc	ccgctgtctg	cacgtggacc	tgtgcacag	3360
catcctgcgg	tcacccatga	gcttctttga	gcggaccccc	agtgggaacc	tggatgaaccg	3420
cttctccaag	gagctggaca	cagtggactc	catgatcccc	gaggtcatca	agatgttcat	3480
gggctccctg	ttcaacgtca	ttggtgcctg	catcgttatc	ctgctggcca	cgcccatcgc	3540
cgccatcatc	atcccgcgcc	ttggcctcat	ctacttcttc	gtccagagg	tctacgtggc	3600
ttcctcccgg	cagctgaagc	gcctcgagtc	ggtcagccgc	tccccgggtct	attccccattt	3660
caacgagacc	ttgctggggg	tcagcgtcat	tcgagccttc	gaggagcagg	agcgcttcat	3720
ccaccagagt	gacctgaagg	tggacgagaa	ccagaaggcc	tattacccca	gcatcgtggc	3780

IMMC 143 PCT.US.ST25.txt

caacaggtgg	ctggccgtgc	ggctggagtg	tgtgggcaac	tgcatcgttc	tgtttgctgc	3840
cctgtttgcg	gtgatctcca	ggcacagcct	cagtgcctggc	ttggtgggcc	tctcagtgtc	3900
ttactcattg	caggtcacca	cgtacttgaa	ctggctgggtt	cggatgtcat	ctgaaatgga	3960
aaccaacatc	gtggccgtgg	agaggctcaa	ggagtattca	gagactgaga	aggaggcgcc	4020
ctggcaaatc	caggagacag	ctccgcccag	cagctggccc	cagggtgggcc	gagtggaatt	4080
ccggaactac	tgcctgcgct	accgagagga	cctggacttc	gttctcaggc	acatcaatgt	4140
cacgatcaat	gggggagaaa	aggtcggcat	cgtggggcg	acgggagctg	ggaagtcgtc	4200
cctgaccctg	ggcttatttc	ggatcaacga	gtctgccgaa	ggagagatca	tcatcgatgg	4260
catcaacatc	gccaagatcg	gcctgcacga	cctccgcttc	aagatcacca	tcatcccca	4320
ggaccctggt	ttgttttcgg	gttccctccg	aatgaacctg	gacccattca	gccagtactc	4380
ggatgaagaa	gtctggacgt	ccctggagct	ggccacactg	aaggacttcg	tgtagccct	4440
tcctgacaag	ctagaccatg	aatgtgcaga	aggcggggag	aacctcagtg	tcgggcagcg	4500
ccagcttggtg	tgcctagccc	gggccctgct	gaggaagacg	aagatccttg	tgttggatga	4560
ggccacggca	gccgtggacc	tggaaacgga	cgacctcatc	cagtccacca	tccggacaca	4620
gttcgaggac	tgcaccgtcc	tcaccatcgc	ccaccggctc	aacaccatca	tggactacac	4680
aagggtgatc	gtcttgga	aaggagaaat	ccaggagtac	ggcgcccat	cggacctcct	4740
gcagcagaga	ggctttttct	acagcatggc	caaagacgcc	ggcttggtgt	gagccccaga	4800
gctggcatat	ctggtcagaa	ctgcagggcc	tatatgccag	cgcccaggga	ggagtcatga	4860
cccctggtaa	accaagcctc	ccacactgaa	acaaaaacat	aaaaacaaa	cccagacaac	4920
caaaacatat	tcaaagcagc	agccaccgcc	atccgggtccc	ctgcctggaa	ctggctgtga	4980
agaccagga	gagacagaga	tgcaaccac	c			5011

<210> 36
 <211> 4192
 <212> DNA
 <213> Human

<400> 36	
tccaagctca	aagaagcaga
ggccgctggt	cgtttccttt
aggtctttcc	actaaagtcg
60	
gagtatcttc	ttccaagatt
tcacgtcttg	gtggccgttc
caaggagcgc	gaggtcggga
120	
tggatcttga	aggggaccgc
aatggaggag	caaagaagaa
gaactttttt	aaactgaaca
180	
ataaaaagtga	aaaagataag
aaggaaaaga	aaccaactgt
cagtgtatctt	tcaatgtttc
240	
gctattcaaa	ttggcttgac
aagttgtata	tggtgggtggg
aactttggct	gccatcatcc
300	
atggggctgg	acttcctctc
atgatgctgg	tgtttgagaa
aatgacagat	atctttgcaa
360	
atgcaggaaa	tttagaagat
ctgatgtcaa	acatcactaa
tagaagtgat	atcaatgata
420	

caggggttctt	catgaatctg	gaggaagaca	tgaccaggta	tgcttattat	tacagtggaa	480
ttggtgctgg	ggtgctgggt	gctgcttaca	ttcaggtttc	attttggtgc	ctggcagctg	540
gaagacaaat	acacaaaatt	agaaaacagt	tttttcatgc	tataatgcga	caggagatag	600
gctggtttga	tgtgcacgat	gttggggagc	ttaacacccg	acttacagat	gatgtctcca	660
agattaatga	aggaattggg	gacaaaattg	gaatgttctt	tcagtcaatg	gcaacatttt	720
tcactggggt	tatagtagga	tttacacgtg	gttggaagct	aacccttggt	attttgcca	780
tcagtcctgt	tcttggactg	tcagctgctg	tctgggcaaa	gatactatct	tcatttactg	840
ataaagaact	cttagcgtat	gcaaaaagctg	gagcagtagc	tgaagaggtc	ttggcagcaa	900
ttagaactgt	gattgcattt	ggaggacaaa	agaaagaact	tgaaagggtac	aacaaaaatt	960
tagaagaagc	taaaagaatt	gggataaaga	aagctattac	agccaatatt	tctatagggtg	1020
ctgctttcct	gctgatctat	gcatcttatg	ctctggcctt	ctggtatggg	accaccttgg	1080
tcctctcagg	ggaatattct	attggacaag	tactcactgt	attttctgta	ttaattgggg	1140
cttttagtgt	tggacaggca	tctccaagca	ttgaagcatt	tgcaaatgca	agaggagcag	1200
cttatgaaat	cttcaagata	attgataata	agccaagtat	tgacagctat	tcgaagagtg	1260
ggcacaacc	agataatatt	aagggaatt	tggaaattcag	aaatgttcac	ttcagttacc	1320
catctcgaaa	agaagttaag	atcttgaagg	gtctgaacct	gaagggtgcag	agtgggcaga	1380
cgggtggcct	ggttggaaac	agtggctgtg	ggaagagcac	aacagtccag	ctgatgcaga	1440
ggctctatga	ccccacagag	gggatgggtca	gtgttgatgg	acaggatatt	aggaccataa	1500
atgtaagggt	tctacgggaa	atcattgggtg	tggtgagtca	ggaacctgta	ttgtttgcca	1560
ccacgatagc	tgaaaacatt	cgctatggcc	gtgaaaatgt	caccatggat	gagattgaga	1620
aagctgtcaa	ggaagccaat	gcctatgact	ttatcatgaa	actgcctcat	aaatttgaca	1680
ccctggttgg	agagagaggg	gcccagttga	gtggtgggca	gaagcagagg	atcgccattg	1740
cacgtgccct	ggttcgcaac	cccaagatcc	tcctgctgga	tgaggccacg	tcagccttgg	1800
acacagaaa	cgaagcagtg	gttcagggtg	ctctggataa	ggccagaaaa	ggtcggacca	1860
ccattgtgat	agctcatcgt	ttgtctacag	ttcgtaatgc	tgacgtcatc	gctggtttcg	1920
atgatggagt	cattgtggag	aaaggaaatc	atgatgaact	catgaaagag	aaaggcattt	1980
acttcaaact	tgtcacaatg	cagacagcag	gaaatgaagt	tgaattagaa	aatgcagctg	2040
atgaatccaa	aagtgaaatt	gatgccttgg	aaatgtcttc	aaatgattca	agatccagtc	2100
taataagaaa	aagatcaact	cgtaggagtg	tccgtggatc	acaagcccaa	gacagaaagc	2160
ttagtaccaa	agaggctctg	gatgaaagta	tacctccagt	ttccttttgg	aggattatga	2220
agctaaat	aactgaatgg	ccttattttg	ttgttggtgt	attttggtgcc	attataaatg	2280
gaggcctgca	accagcattt	gcaataatat	tttcaaagat	tataggggtt	tttacaagaa	2340

IMMC 143 PCT.US.ST25.txt

ttgatgatcc	tgaaacaaaa	cgacagaata	gtaacttggt	ttcactattg	tttctagccc	2400
ttggaattat	ttcttttatt	acatttttcc	ttcaggggtt	cacatttggc	aaagctggag	2460
agatcctcac	caagcggctc	cgatacatgg	ttttccgatc	catgctcaga	caggatgtga	2520
gttggtttga	tgaccctaaa	aacaccactg	gagcattgac	taccaggctc	gccaatgatg	2580
ctgctcaagt	taaaggggct	ataggttcca	ggcttgctgt	aattaccag	aatatagcaa	2640
atcttgggac	aggaataatt	atctccttca	tctatgggtg	gcaactaaca	ctgttactct	2700
tagcaattgt	acccatcatt	gcaatagcag	gagttgttga	aatgaaaatg	ttgtctggac	2760
aagcactgaa	agataagaaa	gaactagaag	gtgctgggaa	gatcgctact	gaagcaatag	2820
aaaacttccg	aaccgttggt	tctttgactc	aggagcagaa	gtttgaacat	atgtatgctc	2880
agagtttgca	ggtaccatac	agaaaactct	tgaggaaagc	acacatcttt	ggaattacat	2940
tttccttcac	ccaggcaatg	atgtattttt	cctatgctgg	atgtttccgg	tttgagcct	3000
acttgggtggc	acataaactc	atgagctttg	aggatgttct	gttagtattt	tcagctgttg	3060
tctttggtgc	catggccgtg	gggcaagtca	gttcatttgc	tcctgactat	gccaaagcca	3120
aaatatcagc	agcccacatc	atcatgatca	ttgaaaaaac	ccctttgatt	gacagctaca	3180
gcacggaagg	cctaatagccg	aacacattgg	aaggaaatgt	cacatttggg	gaagttgtat	3240
tcaactatcc	cacccgaccg	gacatcccag	tgcttcaggg	actgagcctg	gaggtgaaga	3300
agggccagac	gctggctctg	gtgggcagca	gtggctgtgg	gaagagcaca	gtggtccagc	3360
tcctggagcg	gttctacgac	cccttggcag	ggaaagtgt	gcttgatggc	aaagaaataa	3420
agcgactgaa	tgttcagtgg	ctccgagcac	acctgggcat	cgtgtcccag	gagcccatcc	3480
tgtttgactg	cagcattgct	gagaacattg	cctatggaga	caacagccgg	gtggtgtcac	3540
aggaagagat	tgtgagggca	gcaaaggagg	ccaacataca	tgcccttcac	gagtcactgc	3600
ctaataaata	tagcactaaa	gtaggagaca	aaggaactca	gctctctggg	ggccagaaac	3660
aacgcattgc	catagctcgt	gcccttggtt	gacagcctca	tattttgctt	ttggatgaag	3720
ccacgtcagc	tctggataca	gaaagtgaag	aggttgtcca	agaagccctg	gacaaagcca	3780
gagaaggccg	cacctgcatt	gtgattgctc	accgcctgtc	caccatccag	aatgcagact	3840
taatagtggg	gtttcagaat	ggcagagtca	aggagcatgg	cacgcatcag	cagctgctgg	3900
cacagaaagg	catctatttt	tcaatgggtca	gtgtccaggc	tggaacaaag	cgccagtgaag	3960
ctctgactgt	atgagatgtt	aaatactttt	taatatttgt	ttagatatga	catttattca	4020
aagttaaaag	caaacactta	cagaattatg	aagaggatc	tgtttaacat	ttcctcagtc	4080
aagttcagag	tcttcagaga	cttcgtaatt	aaaggaacag	agtgagagac	atcatcaagt	4140
ggagagaaat	catagtttaa	actgcattat	aaattttata	acagaattaa	ag	4192

IMMC 143 PCT.US.ST25.txt

<210> 37
 <211> 3266
 <212> DNA
 <213> Human

<400> 37
 gcggtgcggg ccgggcgggt gcattcaggc caaggcgggg ccgccgggat gctcagggtt 60
 ccggagccgc ggcccgggga ggcgaaagcg gagggggccg cgccgccgac cccgtccaag 120
 ccgctcacgt ccttcctcat ccaggacatc ctgcgggacg gcgcgcagcg gcaaggcggc 180
 cgcacgagca gccagagaca gcgcgacccg gagccggagc cagagccaga gccagagggg 240
 ggacgcagcc gcgccggggc gcagaacgac cagctgagca ccgggccccg cgccgcgccg 300
 gaggaggccg agacgctggc agagaccgag ccagaaaggc acttggggtc ttatctgttg 360
 gactctgaaa acacttcagg cgcccttcca aggcttcccc aaaccctaa gcagccgcag 420
 aagcgctccc gagctgcctt ctccacact caggatgatc agttggagag gaagttcagc 480
 catcagaagt acctgtcagc ccctgaacgg gccacctgg ccaagaacct caagctcacg 540
 gagaccaag tgaagatatg gttccagaac agacgctata agactaagcg aaagcagctc 600
 tcctcggagc tgggagactt ggagaagcac tcctctttgc cggccctgaa agaggaggcc 660
 ttctcccggg cctccctggg ctccgtgtat aacagctatc cttactaccc atacctgtac 720
 tgcgtgggca gctggagccc agcttttttg taatgccagc tcaggtgaca accattatga 780
 tcaaaaactg ctttccccag ggtgtctcat atgaaaagca caaggggcca aggtcaggga 840
 gcaagagggt tgacaccaa aactattgga gaattgcgtg gaaatcttca gattcttcac 900
 tggtgagaca atgaaacaac agagacagtg aaagttttta tacctaagtc attccccag 960
 tgcatactgt agcgtcaagt ttttgcttct ggctacctgt ttgaagggga gagagggaaa 1020
 atcaagtggg attttccagc actttgtatg attttggatg agctgtacac ccaaggattc 1080
 tgttctgcaa ctccatcctc ctgtgtcact gaatatcaac tctgaaagag caaacctaac 1140
 aggagaaagg acaaccagga tgaggatgtc accaactgaa ttaaacttaa gtccagaagc 1200
 ctctgtttgg ccttggaata tggccaaggc tctctctgtc cctgtaaaag agagggggcaa 1260
 atagtctcca aagagaacgc cctcatgctc agcacatatt tgcattggaag ggggagatgg 1320
 gtgggaggag atgaaaaatat cagcttttct ttttcctttt ttttcctttt aaaatgggat 1380
 gccaaactta gtatttacag ggtggcccaa atagaacaag atgcactcgc tgtgatttta 1440
 agacaagctg tataaacaga actccactgc aagagggagg gccgggccag gagaatctcc 1500
 gcttgtccaa gacagggggc taaggagggt ctccacactg ctgctagggg ctgttgcat 1560
 tttttattag tagaaagtgg aaaggcctct tctcaacttt tttcccttgg gctggagaat 1620
 ttagaatcag aagtttcctg gagttttcag gctatcatat atactgtatc ctgaaaggca 1680

IMMC 143 PCT.US.ST25.txt

acataattct tccttccctc cttttaaaat tttgtgttcc tttttgcagc aattactcac 1740
 taaagggctt catttttagtc cagattttta gtctggctgc acctaactta tgcctcgctt 1800
 atttagcccg agatccggtc tttttttttt tttttttttc cgtctcccca aagctttatc 1860
 tgtcttgact ttttaaaaaa gtttgggggc agattctgaa ttggctaaaa gacatgcatt 1920
 tttaaaacta gcaactctta tttctttcct ttaaaaatac atagcattaa atcccaaadc 1980
 ctattttaag acctgacagc ttgagaaggg tcactactgc atttatagga ctttctgggtg 2040
 gttctgctgt tacgtttgaa gtctgacaat ctttgagaat ctttgcatgc agaggaggtg 2100
 agaggtattg gattttcaca gagggaagaa cacagcgagc aatgaaggcg caggcttact 2160
 gagctgtcca gtggaggggc catgggtggg acatggaaaa gaaggcagcc taggccctgg 2220
 ggagcccagt ccactgagca agcaagggac tgagttagcc ttttgagga aaaggctaag 2280
 aaaaaggaaa accattctaa aacacaacaa gaaactgtcc aaatgctttg ggaactgtgt 2340
 ttattgccta taatgggggc cccaaaatgg gtaacctaga cttcagagag aatgagcaga 2400
 gagcaaagga gaaatctggg ctgtccttcc attttcatc tgttatctca ggtgagctgg 2460
 tagaggggag acattagaaa aaaatgaaac aacaaaacaa ttactaatga ggtacgctga 2520
 ggcctgggag tctcttgagc tccacgactt caaaattaaa atgagccatg agtcaaacca 2580
 ctgcaatcca gcctgggcaa cgagcaagac ccagtctcta ctgttggtgg caaaattgcc 2640
 aacataagtt aatagaaagt tggccaattt caccctattt tctgtgggtt gggctccaca 2700
 ttgcaatgtt caatgccacg tgctgtgac accgaccgga gtactagcca gcacaaaagg 2760
 cagggtagcc tgaattgctt tctgtctttt acatttcttt taaaataagc atttagtgct 2820
 cagtccctac tgagtactct ttctctcccc tcctctgaat ttaattcttt caacttgcaa 2880
 tttgcaaggg ttacacattt cactgtgatg tatattgtgt tgcaaaaaaa aaaaagtgtc 2940
 tttgtttaaa attacttggg ttgtgaatcc atcttgcttt cccattgga actagtcatt 3000
 aacccatctc tgaactggta gaaaaacatc tgaagagcta gtctatcagc atctgacagg 3060
 tgaattggat ggttctcaga accatttcac ccagacagcc tgtttctatc ctgtttaata 3120
 aattagtttg ggttctctac atgcataaca aaccctgctc caatctgtca cataaaagtc 3180
 tgtgacttga agtttagtca gcacccccac caaactttat ttttctatgt gttttttgca 3240
 acatatgagt gttttgaaaa taaagt 3266

<210> 38
 <211> 4530
 <212> DNA
 <213> Human

<400> 38
 aattctcgag ctcgtcgacc ggtcgacgag ctcgaggggc gacgagctcg agggcgcgcg 60

IMMC_143_PCT.US.ST25.txt

cccggccccc	accctctgca	gcaccccgcg	ccccgcgccc	tcccagccgg	gtccagccgg	120
agccatgggg	ccggagccgc	agtgagcacc	atggagctgg	cggccttggtg	ccgctggggg	180
ctcctcctcg	ccctcttgcc	ccccggagcc	gcgagcaccc	aagtgtgcac	cggcacagac	240
atgaagctgc	ggctccctgc	cagtccccgag	accacactgg	acatgctccg	ccacctctac	300
cagggctgcc	aggtggtgca	gggaaacctg	gaactcacct	acctgcccac	caatgccagc	360
ctgtccttcc	tgcaggatat	ccaggagggtg	cagggctacg	tgctcatcgc	tcacaaccaa	420
gtgaggcagg	tccactgca	gaggctgcgg	attgtgcgag	gcaccagct	ctttgaggac	480
aactatgccc	tggccgtgct	agacaatgga	gacccgctga	acaataccac	ccctgtcaca	540
ggggcctccc	caggaggcct	gcgggagctg	cagcttcgaa	gcctcacaga	gatcttgaaa	600
ggaggggtct	tgatccagcg	gaacccccag	ctctgctacc	aggacacgat	tttgtggaag	660
gacatcttcc	acaagaacaa	ccagctggct	ctcacactga	tagacaccaa	ccgctctcgg	720
gcctgccacc	cctgttctcc	gatgtgtaag	ggctccccgct	gctggggaga	gagttctgag	780
gattgtcaga	gcctgacgcg	cactgtctgt	gccggtggct	gtgcccgtg	caaggggcca	840
ctgcccactg	actgctgcca	tgagcagtgt	gctgccggct	gcacggggcc	caagcactct	900
gactgcctgg	cctgcctcca	cttcaaccac	agtggcatct	gtgagctgca	ctgcccagcc	960
ctggtcacct	acaacacaga	cacgtttgag	tccatgccc	atcccaggagg	ccggtataca	1020
ttcggcgcca	gctgtgtgac	tgctgtccc	tacaactacc	tttctacgga	cgtgggatcc	1080
tgcaccctcg	tctgccccct	gcacaaccaa	gaggtgacag	cagaggatgg	aacacagcgg	1140
tgtgagaagt	gcagcaagcc	ctgtgcccga	gtgtgctatg	gtctgggcat	ggagcacttg	1200
cgagaggtga	gggcagttac	cagtgccaat	atccaggagt	ttgctggctg	caagaagatc	1260
tttgggagcc	tggcatttct	gccggagagc	tttgatgggg	acccagcctc	caacactgcc	1320
ccgctccagc	cagagcagct	ccaagtgttt	gagactctgg	aagagatcac	aggttaccta	1380
tacatctcag	catggccgga	cagcctgcct	gacctcagcg	tcttccagaa	cctgcaagta	1440
atccggggac	gaattctgca	caatggcgcc	tactcgctga	ccctgcaagg	gctggggcatc	1500
agctggctgg	ggctgcgctc	actgagggaa	ctgggcagtg	gactggccct	catccaccat	1560
aacacccacc	tctgcttcgt	gcacacgggtg	ccctgggacc	agctctttcg	gaacccgcac	1620
caagctctgc	tccacactgc	caaccggcca	gaggacgagt	gtgtgggcga	gggcctggcc	1680
tgccaccagc	tgtgcgcccc	agggcactgc	tggggtccag	ggcccaccca	gtgtgtcaac	1740
tgagccagt	tccttcgggg	ccaggagtgc	gtggaggaat	gccgagtact	gcaggggctc	1800
cccagggagt	atgtgaatgc	caggcactgt	ttgccgtgcc	accctgagtg	tcagccccag	1860
aatggctcag	tgacctgttt	tggaccggag	gctgaccagt	gtgtggcctg	tgcccactat	1920
aaggaccctc	ccttctgcgt	ggcccgtgc	cccagcggtg	tgaaacctga	cctctcctac	1980

IMMC 143 PCT.US.ST25.txt

atgcccacatct	ggaagtttcc	agatgaggag	ggcgcacatgcc	agccttgccc	catcaactgc	2040
accactcct	gtgtggacct	ggatgacaag	ggctgccccg	ccgagcagag	agccagccct	2100
ctgacgtcca	tcgtctctgc	ggtggttggc	attctgctgg	tcgtggtctt	gggggtggtc	2160
tttgggatcc	tcacaaagcg	acggcagcag	aagatccgga	agtacacgat	gcggagactg	2220
ctgcaggaaa	cggagctggt	ggagccgctg	acacctagcg	gagcgatgcc	caaccaggcg	2280
cagatgcgga	tcctgaaaga	gacggagctg	aggaagggtga	aggtgcttgg	atctggcgct	2340
tttggcacag	tctacaaggg	catctggatc	cctgatgggg	agaatgtgaa	aattccagtg	2400
gccatcaaag	tgttgaggga	aaacacatcc	cccaaagcca	acaaagaaat	cttagacgaa	2460
gcatacgtga	tggctggtgt	gggctcccca	tatgtctccc	gccttctggg	catctgcctg	2520
acatccacgg	tgacagctggt	gacacagctt	atgccctatg	gctgcctctt	agaccatgtc	2580
cgggaaaacc	gcggacgcct	gggctcccag	gacctgctga	actggtgtat	gcagattgcc	2640
aaggggatga	gctacctgga	ggatgtgcgg	ctcgtacaca	gggacttggc	cgctcggaac	2700
gtgctggtca	agagtcccaa	ccatgtcaaa	attacagact	tcgggctggc	tcggctgctg	2760
gacattgacg	agacagagta	ccatgcagat	gggggcaagg	tgcccatcaa	gtggatggcg	2820
ctggagtgca	ttctccgccg	gcggttcacc	caccagagtg	atgtgtggag	ttatggtgtg	2880
actgtgtggg	agctgatgac	ttttggggcc	aaaccttacg	atgggatccc	agcccgggag	2940
atccctgacc	tgctggaaaa	gggggagcgg	ctgccccagc	cccccatctg	caccattgat	3000
gtctacatga	tcattggtcaa	atgttgatg	attgactctg	aatgtcggcc	aagattccgg	3060
gagttggtgt	ctgaattctc	ccgcatggcc	agggaccccc	agcgctttgt	ggtcatccag	3120
aatgaggact	tggggccagc	cagtcccttg	gacagcacct	tctaccgctc	actgctggag	3180
gacgatgaca	tgggggacct	ggtggatgct	gaggagtatc	tggtagccca	gcagggcttc	3240
ttctgtccag	accctgcccc	gggcgctggg	ggcatggtcc	accacaggca	ccgcagctca	3300
tctaccagga	gtggcggttg	ggacctgaca	ctagggctgg	agccctctga	agaggaggcc	3360
cccagggtctc	cactggcacc	ctccgaaggg	gctggctccg	atgtatttga	tggtagacctg	3420
ggaatggggg	cagccaaggg	gctgcaaagc	ctccccacac	atgaccccag	ccctctacag	3480
cggtagactg	aggaccccac	agtacccctg	ccctctgaga	ctgatggcta	cgttgcccc	3540
ctgacctgca	gccccagacc	tgaatatgtg	aaccagccag	atgttcggcc	ccagccccct	3600
tcgccccgag	agggccctct	gcctgctgcc	cgacctgctg	gtgccactct	ggaaagggcc	3660
aagactctct	ccccagggaa	gaatggggtc	gtcaaagacg	tttttgcctt	tgggggtgcc	3720
gtggagaacc	ccgagtactt	gacaccccag	ggaggagctg	cccctcagcc	ccaccctcct	3780
cctgccttca	gcccagcctt	cgacaacctc	tattactggg	accaggaccc	accagagcgg	3840

IMMC 143 PCT.US.ST25.txt

ggggctccac ccagcacctt caaaggggaca cctacggcag agaaccacaga gtacctgggt 3900
 ctggacgtgc cagtgtgaac cagaaggcca agtccgcaga agccctgatg tgtcctcagg 3960
 gagcagggaa ggcctgactt ctgctggcat caagagggtg gagggccctc cgaccacttc 4020
 caggggaacc tgccatgcc a ggaacctgtc ctaaggaacc ttccttcctg cttgagttcc 4080
 cagatggctg gaaggggtcc agcctcgtt gaagaggaac agcactggg agtctttgtg 4140
 gattctgagg ccctgccc aa tgagactcta gggctccagt gatgccacag cccagcttgg 4200
 ccctttcctt ccagatcctg ggtactgaaa gccttaggga agctggcctg agaggggaag 4260
 cggccctaag ggagtgtcta agaacaaaag cgaccattc agagactgtc cctgaaacct 4320
 agtactgccc cccatgagga aggaacagca atgggtgtcag tatccaggct ttgtacagag 4380
 tgcttttctg tttagttttt actttttttg ttttgttttt ttaaagacga aataaagacc 4440
 caggggagaa tgggtgttgt atggggaggc aagtgtgggg ggtccttctc cacaccact 4500
 ttgtccattt gcaaatatat tttgaaaaac 4530

<210> 39
 <211> 4139
 <212> DNA
 <213> Human

<400> 39
 ccgctccacc tctcaagcag ccagcgctg cctgaatctg ttctgcccc tccccacca 60
 tttcaccacc accatgacac cgggcacca gtctcctttc ttcctgctgc tgctcctcac 120
 agtgcttaca gttgttacag gttctggcca tgcaagctctt accccagggt gagaaaagga 180
 gacttcggct acccagagaa gttcagtgcc cagctctact gagaagaatg ctgtgagtat 240
 gaccagcagc gtactctcca gccacagccc cggttcaggc tcctccacca ctcagggaca 300
 ggatgtcact ctggccccgg ccacggaacc agcttcagggt tcagctgcca cctggggaca 360
 ggatgtcacc tcgggtcccag tcaccaggcc agccctgggc tccaccaccc cgccagccca 420
 cgatgtcacc tcagccccgg acaacaagcc agccccgggc tccaccgccc ccccagccca 480
 cgggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca 540
 cgggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca 600
 cgggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca 660
 cgggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca 720
 cgggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca 780
 cgggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca 840
 cgggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca 900
 cgggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca 960

[illegible]

IMMC 143 PCT.US.ST25.txt

tggtgtcacc	tcggcccccg	acaacaggcc	cgccttgggc	tccaccgccc	ctccagtcca	2940
caatgtcacc	tcggcctcag	gctctgcatc	aggctcagct	tctactctgg	tgcacaacgg	3000
cacctctgcc	agggctacca	caaccccagc	cagcaagagc	actccattct	caattcccag	3060
ccaccactct	gatactccta	ccacccttgc	cagccatagc	accaagactg	atgccagtag	3120
cactcaccat	agctcggtag	ctcctctcac	ctcctccaat	cacagcactt	ctccccagtt	3180
gtctactggg	gtctctttct	ttttcctgtc	ttttcacatt	tcaaacctcc	agtttaattc	3240
ctctctggaa	gatcccagca	ccgactacta	ccaagagctg	cagagagaca	tttctgaaat	3300
gtttttgcag	atttataaac	aaggggggtt	tctgggcctc	tccaatatta	agttcaggcc	3360
aggatctgtg	gtggtacaat	tgactctggc	cttccgagaa	ggtaccatca	atgtccacga	3420
cgtggagaca	cagttcaatc	agtataaaac	ggaagcagcc	tctcgatata	acctgacgat	3480
ctcagacgtc	agcgtgagtg	atgtgccatt	tcctttctct	gccagctctg	gggctggggg	3540
gccaggctgg	ggcatcgcgc	tgctgggtgt	ggtctgtgtt	ctggttgccg	tggccattgt	3600
ctatctcatt	gccttggtctg	tctgtcagtg	ccgccgaaaag	aactacgggc	agctggacat	3660
ctttccagcc	cgggatacct	accatcctat	gagcgagtag	cccacctacc	acacccatgg	3720
gcgctatgtg	ccccctagca	gtaccgatcg	tagccccctat	gagaagggtt	ctgcaggtaa	3780
cgggtggcagc	agcctctctt	acacaaaacc	agcagtggca	gccgcttctg	ccaacttgta	3840
gggcacgtcg	ccgctgagct	gagtggccag	ccagtgccat	tccactccac	tcaggttctt	3900
caggccagag	cccctgcacc	ctgtttgggc	tggtgagctg	ggagttcagg	tgggctgctc	3960
acagcctcct	tcagaggccc	caccaatttc	tcggacactt	ctcagtgtgt	ggaagctcat	4020
gtgggcccct	gaggctcatg	cctgggaagt	gttggtgggg	ctcccaggag	gactggccca	4080
gagagccctg	agatagcggg	gatcctgaac	tggactgaat	aaaacgtggg	ctcccactg	4139

<210> 40
 <211> 3860
 <212> DNA
 <213> Human

<400> 40	
aggagagcccc	agaaaagcgg aagaatttag acgcacactg ggtcgcatag ggcatggagc 60
tgagagaacta	taaacagccc gtggtgctga gagaggacaa ctgccgaagg cgccggagga 120
tgaagccgcg	cagtgtctgcg gccagcctgt cctccatgga gctcatcccc atcgagttcg 180
tgctgcccac	cagccagcgc aaatgcaaga gccccgaaac ggcgctgctg cacgtggccg 240
gccacggcaa	cgtggagcag atgaaggccc aggtgtggct gcgagcgctg gagaccagcg 300
tggcggcgga	cttctaccac cggctgggac cgcactcactt cctcctgctc tatcagaaga 360
aggggcagtg	gtacgagatc tacgacaagt accaggtggg gcagactctg gactgcctgc 420

IMMC 143 PCT.US.ST25.txt

gctactggaa ggccacgcac cggagcccgg gccagatcca cctggtgcag cggcaccgcg	480
cctccgagga gtcccaagcc ttccagcggc agctcacggc gctgattggc tatgacgtca	540
ctgacgtcag caacgtgcac gacgatgagc tggagttcac gcgccgtggc ttggtgaccc	600
cgcgcatggc ggaggtggcc agccgcgacc ccaagctcta cgccatgcac ccgtgggtga	660
cgtccaagcc cctcccggag tacctgtgga agaagattgc caacaactgc atcttcatcg	720
tcattcaccg cagcaccacc agccagacca ttaaggtctc acccgacgac acccccggcg	780
ccatcctgca gagcttcttc accaagatgg ccaagaagaa atctctgatg gatattcccg	840
aaagccaaag cgaacaggat tttgtgctgc gcgtctgtgg ccgggatgag tacctggtgg	900
gcgaaacgcc catcaaaaac ttccagtggg tgaggcactg cctcaagaac ggagaagaga	960
ttcacgtggg actggacacg cctccagacc cggccctaga cgaggtgagg aaggaagagt	1020
ggccgctggg ggacgactgc acgggagtca ccggctacca tgagcagctt accatccacg	1080
gcaaggacca cgagagtgtg ttcaccgtgt ccctgtggga ctgcgaccgc aagttcaggg	1140
tcaagatcag aggcattgat atccccgtcc tgccctcgga caccgacctc acagtttttg	1200
tagaggcaaa catccagcat gggcaacaag tcctttgcca aaggagaacc agccccaac	1260
ccttcacaga ggaggtgctg tggaatgtgt ggcttgagtt cagtatcaaa atcaaagact	1320
tgcccaaagg ggctctactg aacctccaga tctactgcgg taaagctcca gcactgtcca	1380
gcaaggcctc tgcagagtcc ccagttctg agtccaaggg caaagttcag cttctctatt	1440
atgtgaacct gctgctgata gaccaccgtt tcctcctgcg ccgtggagaa tacgtcctcc	1500
acatgtggca gatatctggg aagggagaag accaaggaag cttcaatgct gacaaactca	1560
cgtctgcaac taaccagac aaggagaact caatgtccat ctccattctt ctggacaatt	1620
actgccaccc gatagccctg cctaagcatc agcccacccc tgacccggaa ggggaccggg	1680
ttcgagcaga aatgccaac cagcttcgca agcaattgga ggcatcata gccactgatc	1740
cacttaaccc tctcacagca gaggacaaag aattgctctg gcattttaga tacgaaagcc	1800
ttaagcacc aaagcatat cctaagctat ttagttcagt gaaatgggga cagcaagaaa	1860
ttgtggccaa aacataccaa ttgttgcca gaagggaagt ctgggatcaa agtgctttgg	1920
atgttgggtt aacaatgcag ctctggact gcaacttctc agatgaaaat gtaagagcca	1980
ttgcagttca gaaactggag agcttggagg acgatgatgt tctgcattac cttctacaat	2040
tggtccaggc tgtgaaattt gaaccatacc atgatagtgc ccttgccaga tttctgctga	2100
agcgtgggtt aagaaacaaa agaattggtc actttttgtt ttggttcttg agaagtgaga	2160
tagcccagtc cagacactat cagcagaggt tcgctgtgat tctggaagcc tatctgaggg	2220
gctgtggcac agccatgctg cagcacttta cccaacaagt ccaagtaatc gagatgttac	2280

IMMC 143 PCT.US.ST25.txt

```

aaaaagtcac ccttgatatt aaatcgctct ctgctgaaaa gtatgacgtc agttcccaag 2340
ttatttcaca acttaaacaa aagcttgaaa acctgcagaa ttctcaactc cccgaaagct 2400
ttagagttcc atatgatcct ggactgaaag caggagcgct ggcaattgaa aaatgtaaaag 2460
taatggcctc caagaaaaaa ccactatggc ttgagtttaa atgtgccgat cctacagccc 2520
tatcaaatga aacaattgga attatcttta aacatgggtga tgatctgcgc caagacatgc 2580
ttattttaca gattctacga atcatggagt ctatttgga gactgaatct ttggatctat 2640
gcctcctgcc atatggttgc atttcaactg gtgacaaaat aggaatgatc gagattgtga 2700
aagacgccac gacaattgcc aaaattcagc aaagcacagt gggcaacacg ggagcattta 2760
aagatgaagt cctgaatcac tggctcaaag aaaaatcccc tactgaagaa aagtttcagg 2820
cagcagtgga gagatttgtt tattcctgtg caggctactg tgtggcaacc tttgttcttg 2880
gaataggcga cagacacaat gacaatatta tgatcaccga gacaggaaac ctatttcata 2940
ttgacttcgg gcacattctt gggaattaca aaagtctcct gggcattaat aaagagagag 3000
tgccatttgt gctaaccctt gacttcctct ttgtgatggg aacttctgga aagaagacaa 3060
gcccacactt ccagaaattt caggacatct gtgttaaggc ttatctagcc cttcgtcatc 3120
acacaaacct actgatcatc ctgttctcca tgatgctgat gacaggaatg ccccagttaa 3180
caagcaaaga agacattgaa tatatccggg atgccctcac agtggggaaa aatgaggagg 3240
atgctaaaaa gtattttctt gatcagatcg aagtttgag agacaaagga tggactgtgc 3300
agtttaattg gtttctacat cttgttcttg gcatcaaaca aggagagaaa cattcagcct 3360
aatactttag gctagaatca aaaacaagtt agtgttctat ggtttaaatt agcatagcaa 3420
tcacgaact tggatttcaa atgcaataga cattgtgaaa gctggcattt cagaagtata 3480
gctcttttcc tacctgaact cttccctgga gaaaagatgt tggcattgct gattgtttgg 3540
ttaagcaatg tccagtgcta ggattatttg caggtttggg ttttctcat ttgtctgtgg 3600
cattggagaa tattcttggg ttaaacagac taatgacttc cttattgtcc ctgatatttt 3660
gactatctta ctattgagtg cttctggaaa ttctttggaa taattgatga catctatttt 3720
catctgggtt tagtctcaat tttggttatt tttgtgttcc tcaagctctt taaagaaaaa 3780
gatgtaatcg ttgtaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 3840
aaaaaaaaaa aaaaaaaaaa
3860

```

<210> 41
<211> 1446
<212> DNA
<213> Human

```

<400> 41
attccgccgg agagctgtgt caccatgtgg gtcccgggtg tcttcctcac cctgtccgtg 60

```

IMMC 143 PCT.US.ST25.txt

acgtggattg gtgctgcacc cctcatcctg tctcggattg tgggaggctg ggagtgcgag 120
 aagcattccc aaccctggca ggtgcttggtg gcctctcgtg gcagggcagt ctgcggcggt 180
 gttctgggtgc acccccagtg ggtcctcaca gctgcccact gcatcaggaa caaaagcgtg 240
 atcttgctgg gtcggcacag cctgtttcat cctgaagaca caggccaggt atttcaggtc 300
 agccacagct tcccacaccc gctctacgat atgagcctcc tgaagaatcg attcctcagg 360
 ccagggtgatg actccagcca cgacctcatg ctgctccgcc tgtcagagcc tgccgagctc 420
 acggatgctg tgaaggatcat ggacctgcc acccaggagc cagcactggg gaccacctgc 480
 tacgcctcag gctggggcag cattgaacca gaggagtctt tgaccccaaa gaaacttcag 540
 tgtgtggacc tccatgttat ttccaatgac gtgtgtgcgc aagttcacc tcagaagggtg 600
 accaagttca tgctgtgtgc tggacgctgg acagggggca aaagcacctg ctcgggtgat 660
 tctgggggcc cacttgctctg taatgggtgtg cttcaaggta tcacgtcatg gggcagtga 720
 ccatgtgccc tgcccgaag gccttccctg tacaccaagg tgggtgcatta ccggaagtgg 780
 atcaaggaca ccatcgtggc caaccctga gcaccctat caactcccta ttgtagtaaa 840
 cttggaacct tggaaatgac caggccaaga ctcaagcctc cccagttcta ctgaccttg 900
 tccttaggtg tgagggtccag ggttgctagg aaaagaaatc agcagacaca ggtgtagacc 960
 agagtgtttc ttaaatgggtg taattttgtc ctctctgtgt cctggggaat actggccatg 1020
 cctggagaca tatcactcaa tttctctgag gacacagata ggatggggtg tctgtgttat 1080
 ttgtggggta cagagatgaa agaggggtgg gtaccacact gagagagtgg agagtgacat 1140
 gtgctggaca ctgtccatga agcactgagc agaagctgga ggcacaacgc accagacact 1200
 cacagcaagg atggagctga aaacataacc cactctgtcc tggaggcact ggaagccta 1260
 gagaaggctg tgagccaagg agggaggggtc ttcctttggc atgggatggg gatgaagtaa 1320
 ggagagggac tggaccccct ggaagctgat tcactatggg gggagggtga ttgaagtcct 1380
 ccagacaacc ctcagatttg atgatttcct agtagaactc acagaaataa agagctgtta 1440
 tacgtg 1446

<210> 42
 <211> 2653
 <212> DNA
 <213> Human

<400> 42
 ctcaaaagg gccgatttc cttctcctgg aggcagatgt tgcctctctc tctcgtcgg 60
 attggttcag tgcaactctag aaacactgct gtggtggaga aactggaccc caggctctgga 120
 gcgaattcca gcctgcagg ctgataagcg aggcattagt gagattgaga gagactttac 180
 cccgccgtgg tggttggagg gcgcgcagta gagcagcagc acaggcgcgg gtcccgggag 240

gccggctctg ctcgcgccga gatgtggaat ctcccttcacg aaaccgactc ggctgtggcc 300
 accgcgcgcc gcccgcgctg gctgtgcgct ggggcgctgg tgctggcggg tggcttcttt 360
 ctccctcggct tcctcttcggt gtggtttata aaatcctcca atgaagctac taacattact 420
 ccaaagcata atatgaaagc atttttggat gaattgaaag ctgagaacat caagaagttc 480
 ttatataatt ttacacagat accacattta gcaggaacag aacaaaaactt tcagcttgca 540
 aagcaaattc aatcccagtg gaaagaattht ggcctggatt ctgttgagct agcacattat 600
 gatgtcctgt tgcctacccc aaataagact catcccaact acatctcaat aattaatgaa 660
 gatggaaatg agatthttcaa cacatcatta tttgaaccac ctccctccagg atatgaaaat 720
 gtttcggata ttgtaccacc tttcagtgct ttctctcctc aagggaatgcc agagggcgat 780
 ctagtgtatg ttaactatgc acgaactgaa gacttctthta aattggaacg ggacatgaaa 840
 atcaattgct ctgggaaaaat tgtaattgcc agatatggga aagthtttcag aggaaataag 900
 gttaaaaatg cccagctggc aggggccaata ggagtcattc tctactccga ccctgctgac 960
 tactttgctc ctgggggtgaa gtcctatcca gatgggttga atcttctctg aggtggtgtc 1020
 cagcgtggaa atatcctaaa tctgaatggt gcaggagacc ctctcacacc aggttaccca 1080
 gcaaatgaat atgcttatag gcgtggaatt gcagaggctg ttggtcttcc aagtattcct 1140
 gttcatccaa ttggatacta tgatgcacag aagctcctag aaaaaatggg tggctcagca 1200
 ccaccagata gcagctggag aggaagtctc aaagtgccct acaatgttgg acctggcttt 1260
 actggaaaact tttctacaca aaaagtcaag atgcacatcc actctaccaaa tgaagtgaca 1320
 agaatttaca atgtgatagg tactctcaga ggagcagtggt aaccagacag atatgtcatt 1380
 ctgggaggtc accgggactc atgggtgttt ggtggtattg accctcagag tggagcagct 1440
 gttgttcatg aaattgtgag gagcttttga acactgaaaa aggaaggggtg gagacctaga 1500
 agaacaattht tgthttgcaag ctgggatgca gaagaattht gtcttcttgg ttctactgag 1560
 tgggcagagg agaattcaag actccttcaa gagcgtggcg tggcttatat taatgctgac 1620
 tcatctatag aaggaaaacta cactctgaga gttgattgta caccgctgat gtacagcttg 1680
 gtacacaacc taacaaaaga gctgaaaagc cctgatgaag gctthtgaagg caaatctctt 1740
 tatgaaagtt ggactaaaaa aagtccttcc ccagagttca gtggcatgcc caggataagc 1800
 aaattgggat ctggaaaatga tthttgaggtg ttcttccaac gacttggaat tgcttcaggc 1860
 agagcacggt atactaaaaa ttgggaaaca aacaaattca gcggctatcc actgtatcac 1920
 agtgtctatg aaacatatga gttggtggaa aagthtttatg atccaatgtt taaatatcac 1980
 ctactgtgg cccaggttcg aggaggggatg gtgtttgagc tagccaattc catagtgtctc 2040
 cthtttgatt gtcgagatta tgctgtagtt ttaagaaagt atgtgacaa aatctacagt 2100
 atthctatga aacatccaca ggaaatgaag acatacagtg tatcatttga ttcactthttt 2160

IMMC 143 PCT.US.ST25.txt

tctgcagtaa	agaattttac	agaaattgct	tccaagttca	gtgagagact	ccaggacttt	2220
gacaaaagca	acccaatagt	attaagaatg	atgaatgatc	aactcatggt	tctggaaaga	2280
gcattttattg	atccattagg	gttaccagac	aggccttttt	ataggcatgt	catctatgct	2340
ccaagcagcc	acaacaagta	tgcaggggag	tcattcccag	gaatttatga	tgctctgttt	2400
gatattgaaa	gcaaagtgga	cccttccaag	gcctggggag	aagtgaagag	acagatttat	2460
gttgacgct	tcacagtgc	ggcagctgca	gagactttga	gtgaagtagc	ctaagaggat	2520
tcttttagaga	atccgtattg	aatttgtgtg	gtatgtcact	cagaaagaat	cgtaatgggt	2580
atattgataa	attttaaaat	tggtatat	gaaataaagt	tgaatattat	atataaaaaa	2640
aaaaaaaaaa	aaa					2653

<210> 43
 <211> 2365
 <212> DNA
 <213> Human

<400> 43						
atgactgagc	tgaaggcaaa	gggtccccgg	gctccccacg	tggcgggagg	cccgccctcc	60
cccagggtcg	gatccccact	gctgtgtcgc	ccagccgcag	gtccgttccc	ggggagccag	120
acctcggaca	ccttgcctga	agtttcggcc	atacctatct	ccctggacgg	gctactcttc	180
cctcggccct	gccagggaca	ggacccctcc	gacgaaaaga	cgcaggacca	gcagtcgctg	240
tcggacgtgg	agggcgcata	ttccagagct	gaagctacaa	ggggtgctgg	aggcagcagt	300
tctagtcccc	cagaaaagga	cagcggactg	ctggacagtg	tcttggacac	tctgttggcg	360
ccctcaggtc	ccgggcagag	ccaaccagc	cctcccgct	gcgaggtcac	cagctcttgg	420
tgctgtttg	gccccgaact	tcccgaagat	ccaccggctg	cccccgccac	ccagcgggtg	480
ttgtccccgc	tcatgagccg	gtccgggtgc	aagggtggag	acagctccgg	gacggcagct	540
gcccataaag	tgctgccccg	gggcctgtca	ccagcccggc	agctgctgct	cccggcctct	600
gagagccctc	actggtcccg	ggccccagtg	aagccgtctc	cgcaggccgc	tgcggtggag	660
gttgaggagg	aggatggctc	tgagtccgag	gagtctgcgg	gtccgcttct	gaagggcaaa	720
cctcgggctc	tgggtggcgc	ggcggctgga	ggaggagccg	cggctgtccc	gccgggggcg	780
gcagcaggag	gcgtcgccct	ggtccccaag	gaagattccc	gcttctcagc	gcccagggtc	840
gccctgggtg	agcaggacgc	gccgatggcg	cccgggcgct	ccccgctggc	caccacggtg	900
atggatttca	tccacgtgcc	tatcctgcct	ctcaatcacg	ccttattggc	agcccgcact	960
cggcagctgc	tggaagacga	aagttacgac	ggcggggccg	gggctgccag	cgcctttgcc	1020
ccgccgcgga	gttcaccctg	tgccctgtcc	accccggtcg	ctgtaggcga	cttccccgac	1080
tgcgcgtagc	cgcccgcgc	cgagcccaag	gacgacgcgt	accctctcta	tagcgacttc	1140

IMMC 143 PCT.US.ST25.txt

cagccgcccc	ctctaaagat	aaaggaggag	gaggaaggcg	cggaggcctc	cgcgcgctcc	1200
ccgcgttcct	accttggtgg	cggtgccaac	cccgcagcct	tcccggattt	cccgttgggg	1260
ccaccgcccc	cgctgccgcc	gcgagcgacc	ccatccagac	ccggggaagc	ggcggtgacg	1320
gccgcacccg	ccagtgcctc	agtctcgtct	gcgtcctcct	cggggtcgac	cctggagtgc	1380
atcctgtaca	aagcggaggg	cgcgccgccc	cagcagggcc	cgttcgcgcc	gccgccctgc	1440
aaggcgccgg	gcgcgagcgg	ctgcctgctc	ccgcgggacg	gcctgccctc	cacctccgcc	1500
tctgccgccg	ccgccggggc	ggcccccgcg	ctctaccctg	cactcggcct	caacgggctc	1560
ccgcagctcg	gctaccaggc	cgccgtgctc	aaggagggcc	tgccgcaggt	ctaccgccc	1620
tatctcaact	acctgaggcc	ggattcagaa	gccagccaga	gcccacaata	cagcttcgag	1680
tcattacctc	agaagatttg	tttaatctgt	ggggatgaag	catcaggctg	tcattatggt	1740
gtccttacct	gtgggagctg	taaggctctc	tttaagaggg	caatggaagg	gcagcacaac	1800
tacttatgtg	ctggaagaaa	tgactgcac	gttgataaaa	tccgcagaaa	aaactgccc	1860
gcatgtcgcc	ttagaaagtg	ctgtcaggct	ggcatggtcc	ttggagggtt	tcgaaactta	1920
catattgatg	accagataac	tctcattcag	tattcttgga	tgagcttaat	ggtgtttggt	1980
ctaggatgga	gacccataca	acacgtcagt	gggcagatgc	tgtattttgc	acctgatcta	2040
atactaaatg	attcctttgg	aagggctacg	aagtcaaacc	cagtttgagg	agatgaggtc	2100
aagctacatt	agagagctca	tcaaggcaat	tggtttgagg	caaaaaggag	ttgtgtcgag	2160
ctcacagcgt	ttctatcaac	ttacaaaact	tcttgataac	ttgcatgac	ttgtcaaaca	2220
acttcactctg	tactgcttga	atacatttat	ccagtcccgg	gcactgagtg	ttgaatttcc	2280
agaaatgatg	tctgaagtta	ttgctgcaca	attacccaag	atattggcag	ggatggtgaa	2340
acccttctc	tttcataaaa	agtga				2365

<210> 44
 <211> 591
 <212> DNA
 <213> Human

<400> 44						
cttctctggg	acacattgcc	ttctgttttc	tccagcatgc	gcttgctcca	gctcctgttc	60
agggccagcc	ctgccaccct	gctcctgggt	ctctgcctgc	agttgggggc	caacaaagct	120
caggacaaca	ctcgaagat	cataataaag	aattttgaca	ttccaagtc	agtacgtcca	180
aatgacgaag	tactgcagt	gcttgcagtt	caaacagaat	tgaaagaatg	catggtggtt	240
aaaacttacc	tcattagcag	catccctcta	caaggcgc	ttactataa	gtatactgcc	300
tgccatgtg	acgacaatcc	aaaaaccttc	tactgggact	tttacacca	cagaactgtg	360
caaattgcag	ccgtcgttga	tgttattcgg	gaattaggca	tctgccctga	tgatgctgct	420

IMMC 143 PCT.US.ST25.txt

gtaatcccca tcaaaaacaa ccggttttat actattgaaa tcctaaaggt agaataatgg 480
aagccctgtc tgtttgccac acccaggtga tttcctctaa agaaacttgg ctggaatttc 540
tgctgtggtc tataaaataa acttcttaac atgcttaaaa aaaaaaaaaa a 591

<210> 45
<211> 1547
<212> DNA
<213> Human

<400> 45
gggagtcatc atgagcgatg ttaccattgt gaaagaaggt tgggttcaga agaggggaga 60
atatataaaa aactggaggc caagatactt ccttttgaag acagatggct cattcatagg 120
atataaagag aaacctcaag atgtggattt accttatccc ctcaacaact tttcagtggc 180
aaaatgccag ttaatgaaaa cagaacgacc aaagccaaac acatttataa tcagatgtct 240
ccagtggact actgttatag agagaacatt tcatgtagat actccagagg aaaggggaaga 300
atggacagaa gctatccagg ctgtagcaga cagactgcag aggcaagaag aggagagaat 360
gaattgtagt ccaacttcac aaattgataa tataggagag gaagagatgg atgcctctac 420
aaccatcat aaaagaaaga caatgaatga ttttgactat ttgaaactac taggtaaagg 480
cacttttggg aaagtatttt tggttcgaga gaaggcaagt ggaaaatact atgctatgaa 540
gattctgaag aaagaagtca ttattgcaa ggatgaagtg gcacacactc taactgaaag 600
cagagtatta aagaacacta gacatccctt ttaacatcc ttgaaatatt ccttccagac 660
aaaagaccgt ttgtgttttg tgatggaata tgtaaatggg ggcgagctgt ttttccattt 720
gtcgagagag cgggtgttct ctgaggaccg cacacgtttc tatggtgcag aaattgtctc 780
tgccttggac tatctacatt ccggaagat tgtgtaccgt gatctcaagt tggagaatct 840
aatgctggac aaagatggcc acataaaaat tacagatttt ggactttgca aagaagggat 900
cacagatgca gccacatga agacattctg tggcactcca gaatatctgg caccagaggt 960
gttagaagat aatgactatg gccgagcagt agactggtgg ggcctagggg ttgtcatgta 1020
tgaaatgatg tgtgggaggt tacctttcta caaccaggac catgagaaac tttttgaatt 1080
aatattaatg gaagacatta aatttcctcg aacactctct tcagatgcaa aatcattgct 1140
ttcagggctc ttgataaagg atccaaataa acgccttggg ggaggaccag atgatgcaaa 1200
agaaattatg agacacagtt tcttctctgg agtaaactgg caagatgtat atgataaaaa 1260
gcttgtaacct ctttttaaac ctcaagtaac atctgagaca gatactagat attttgatga 1320
agaatttaca gctcagacta ttacaataac accacctgaa aaatatgatg aggatggtat 1380
ggactgcatg gacaatgaga ggcggccgca tttccctcaa ttttcctact ctgcaagtgg 1440
acgagaataa gtctctttca ttctgtact tcaactgtcat cttcaattta ttactgaaaa 1500

tgattcctgg acatcaccag tcctagctct tacacatagc aggggca 1547

<210> 46
 <211> 2799
 <212> DNA
 <213> Human

<400> 46
 ctcacacacc ctgaagacac agtgagttag caccaccacc aggaattggc cttttagctc 60
 tgtgcctgtc tccagtcagg ctggaataag tctcctcata ttigcaagct cggccctccc 120
 ctggaatcta aagcctcctc agccttctga gtcagcctga aaggaacagg ccgaactgct 180
 gtatgggctc tactgccagt gtgacctcac cctctccagt caccctcctc cagttccagc 240
 tatgagttcc tgcaacttca cacatgccac ctttggtgctt attggtatcc caggattaga 300
 gaaagcccat ttctgggttg gcttccccct cttttccatg tatgtagtgg caatgtttgg 360
 aaactgcatc gtggtcttca tcgtaaggac ggaacgcagc ctgcacgctc cgatgtacct 420
 ctttctctgc atgcttgacg ccattgacct ggccttatcc acatccacca tgcctaagat 480
 ccttgccctt ttctgggttg attcccgaga gattagcttt gaggcctgtc ttaccagat 540
 gttctttatt catgccctct cagccattga atccaccatc ctgctggcca tggcctttga 600
 ccgttatgtg gccatctgcc acccactgcg ccatgctgca gtgctcaaca atacagtaac 660
 agcccagatt ggcatcgtgg ctgtggtccg cggatccctc ttttttttcc cactgcctct 720
 gctgatcaag cggctggcct tctgccactc caatgtcctc tcgcactcct attgtgtcca 780
 ccaggatgta atgaagtgg cctatgcaga cactttgccc aatgtggtat atggtcttac 840
 tgccattctg ctggtcatgg gcgtggacgt aatgttcac tccttgtcct attttctgat 900
 aatacgaacg gttctgcaac tgccttccaa gtcagagcgg gccaaggcct ttggaacctg 960
 tgtgtcacac attggtgtgg tactcgctt ctatgtgcca cttattggcc tctcagttgt 1020
 acaccgcttt ggaaacagcc ttcattccat tgtgcgtgtt gtcattgggtg acatctacct 1080
 gctgctgcct cctgtcatca atcccatcat ctatggtgcc aaaaccaaac agatcagaac 1140
 acgggtgctg gctatgttca agatcagctg tgacaaggac ttgcaggctg tgggaggcaa 1200
 gtgaccctta aactacact tctccttatc ttatttggtg tgataaacat aattatttct 1260
 aactagct tatttccagt tgcccataag cacatcagta cttttctctg gctggaatag 1320
 taaactaaag tatggtacat ctacctaaag gactattatg tggaataata catactaagt 1380
 aagtattaca tgatttaaag actacaataa aaccaaacat gcttataaca ttaagaaaaa 1440
 caataaagat acatgattga aaccaagttg aaaaatagca tatgccttgg aggaaatgtg 1500
 ctcaaattac taatgattta gtgtgtgccc tactttctct ctcttttttc tttctttttt 1560
 ttttattatg gttagctgtc acatacaact tttttttttt tgagatgggg tctcgctctg 1620

IMMC 143 PCT.US.ST25.txt

tcaccaggct	ggagtgcagt	ggcgcgatct	cggctcactg	caacctccac	atcccatgtt	1680
gaagtaattc	ttctgcctca	gcctcccag	tagctgggac	tagaggaacg	tgccaccatg	1740
actggcta	tttctgtatt	ttttagtaga	gacagagttt	caccatgttg	gccaggatgg	1800
tctcgatctc	ctgaccttgt	gatccacccg	cctcagcctc	ccaaagtgtt	gggattacag	1860
gtgtgaacca	ctgtgcccgg	cctgtgtaca	actttttaaa	tagggaatat	gatagcttcg	1920
catggtggtg	tgcacctata	gccccactg	cctggaaagc	tgaggtggga	gaatcgcttg	1980
agtccaggag	tttgagggtta	cagtgatcca	cgatcgtagc	actacactcc	agcctgggca	2040
acggagcaag	accctgtctc	aaagcataaa	atggaataac	atatcaaagt	aaacagggaa	2100
aatgaagctg	acaatttatg	gaagccaggg	cttgtcacag	tctctactgt	tattatgcat	2160
tacctgggaa	tttatataag	cccttaataa	taatgccaat	gaacatctca	tgtgtgctca	2220
caatgttctg	gcactattat	aagtgtctca	caggttttat	gtgttcttcg	taactttatg	2280
gagtaggtac	catttggtgc	tctttattat	aagttagaga	aatgaagttt	atattatcaa	2340
ggggactaaa	gtcacacggc	ttgtgggcac	tgtgccaaaga	tttaaaatta	aatttgatgg	2400
ttgaatacag	ttacttaatg	accatgttat	attgtctcct	gtgtaacatc	tgccatttat	2460
ttcctcagct	gtacaaatcc	tctgttttct	ctctgttaca	cactaacatc	aatggctttg	2520
tacttgatg	gagagataac	cttgccctag	ttgtgggcaa	cacatgcaga	ataatcctgt	2580
tttacagctg	cctttcgtga	tcttattgct	tgcttttttc	cagattcagg	gagaatgttg	2640
ttgtctat	gtctcttaca	tctccttgat	catgtcttca	ttttttaatg	tgctctgtac	2700
ctgtcaaaaa	ttttgaatgt	acaccacatg	ctattgtctg	aacctgagta	taagataaaa	2760
taaaatttta	ttttaaat	taaaaaaaaa	aaaaaaaa			2799

<210> 47
 <211> 2629
 <212> DNA
 <213> Human

<400> 47	
acttgtcatg	gcgactgtcc agctttgtgc caggagcctc gcaggggttg atgggattgg 60
ggttttcccc	tcccatgtgc tcaagactgg cgctaaaagt tttgagcttc tcaaaagtct 120
agagccaccg	tccagggagc aggtagctgc tgggctccgg ggacactttg cgttcggggct 180
gggagcgtgc	ttccacgac ggtgacacgc ttccctggat tggcagccag actgccttcc 240
gggtcactgc	catggaggag ccgcagtcag atcctagcgt cgagccccct ctgagtcagg 300
aaacattttc	agacctatgg aaactacttc ctgaaaacaa cgttctgtcc cccttgccgt 360
cccaagcaat	ggatgatttg atgctgtccc cggacgatat tgaacaatgg ttcactgaag 420
accaggtcc	agatgaagct ccagaaatgc cagaggctgc tccccgcgtg gccctgcac 480

IMMC 143 PCT.US.ST25.txt

cagcagctcc	tacaccggcg	gcccctgcac	cagccccctc	ctggcccctg	tcattcttctg	540
tcccttccca	gaaaacctac	cagggcagct	acggtttccg	tctgggcttc	ttgcattctg	600
ggacagccaa	gtctgtgact	tgcacgtact	cccctgccct	caacaagatg	ttttgccaac	660
tggccaagac	ctgccctgtg	cagctgtggg	ttgattccac	acccccgccc	ggcaccgcg	720
tccgcgccat	ggccatctac	aagcagtcac	agcacatgac	ggaggttgtg	aggcgctgcc	780
cccaccatga	gcgctgctca	gatagcgatg	gtctggcccc	tcctcagcat	cttatccgag	840
tggaaggaaa	tttgctgtg	gagtatttgg	atgacagaaa	cacttttcga	catagtgtgg	900
tggtgcccta	tgagccgcct	gaggttggct	ctgactgtac	caccatccac	tacaactaca	960
tgtgtaacag	ttcctgcatg	ggcggcatga	accggaggcc	catcctcacc	atcatcacac	1020
tggaagactc	cagtggtaat	ctactgggac	ggaacagctt	tgagggtgct	gtttgtgcct	1080
gtcctgggag	agaccggcgc	acagaggaag	agaatctccg	caagaaagg	gagcctcacc	1140
acgagctgcc	cccagggagc	actaagcgag	cactgccccaa	caacaccagc	tcctctcccc	1200
agccaaagaa	gaaaccactg	gatggagaat	atttcaccct	tcagatccgt	gggcgtgagc	1260
gcttcgagat	gttccgagag	ctgaatgagg	ccttggaact	caaggatgcc	caggctggga	1320
aggagccagg	ggggagcagg	gtcactcca	gccacctgaa	gtccaaaaag	ggtcagtcta	1380
cctcccgcca	taaaaaactc	atgttcaaga	cagaagggcc	tgactcagac	tgacattctc	1440
cacttcttgt	tccccactga	cagcctcca	cccccatctc	tccctcccct	gccatttttg	1500
gttttggttc	tttgaaccct	tgcttgcaat	aggtgtgctg	cagaagcacc	caggacttcc	1560
atttgctttg	tcccggggct	ccactgaaca	agttggcctg	cactgggtgt	ttgttggtgg	1620
gaggaggatg	gggagtagga	cataccagct	tagattttaa	ggtttttact	gtgagggatg	1680
tttgggagat	gtaagaaatg	ttcttgcatg	taagggtag	tttacaatca	gccacattct	1740
aggtaggtag	gggcccactt	caccgtacta	accaggggaag	ctgtccctca	tgttgaattt	1800
tctctaactt	caaggcccat	atctgtgaaa	tgctggcatt	tgacacctacc	tcacagagtg	1860
cattgtgagg	gttaatgaaa	taatgtacat	ctggccttga	aaccaccttt	tattacatgg	1920
ggctctaaaac	ttgaccccct	tgaggggtgcc	tgttccctct	ccctctccct	gttggctggg	1980
gggttggtag	tttctacagt	tgggcagctg	gttaggtaga	gggagtgtgc	aagtcttgct	2040
ggcccagcca	aacctgtct	gacaacctct	tggtcgacct	tagtacctaa	aaggaaatct	2100
caccccatcc	cacaccctgg	aggatttcat	ctcttgata	tgatgatctg	gatccaccaa	2160
gacttgtttt	atgctcagg	tcaatttctt	ttttcttttt	tttttttttt	tttctttttc	2220
tttgagactg	ggctctgctt	tgttgcccag	gctggagtgg	agtggcgtga	tcttggctta	2280
ctgcagcctt	tgcctccccg	gctcgagcag	tcctgcctca	gcctccggag	tagctgggac	2340

IMMC_143_PCT.US.ST25.txt

cacaggttca	tgccaccatg	gccagccaac	ttttgcatgt	ttttagagaga	tggggtctca	2400
cagtgttgcc	caggctggtc	tcaaactcct	gggctcaggc	gatccacctg	tctcagcctc	2460
ccagagtgtc	gggattacaa	ttgtgagcca	ccacgtggag	ctggaagggg	caacatcttt	2520
tacattctgc	aagcacatct	gcattttcac	cccacccttc	ccctccttct	ccctttttat	2580
atccccat	ttt	tatatcgatc	tcttatttta	caataaaaact	ttgctgcca	2629

<210> 48
 <211> 4015
 <212> DNA
 <213> Human

<400> 48	
gcagcgctgc	gtcctgctgc
gcacgtggga	agccctggcc
ccggccaccc	ccgcatgcc
60	
gcgcgctccc	cgctgccgag
ccgtgcgctc	cctgctgcgc
agccactacc	gcgaggtgct
120	
gccgctggcc	acgttcgtgc
ggcgccctggg	gccccagggc
tggcggctgg	tgacgcgcgg
180	
ggacccggcg	gctttccgcg
cgctgggtggc	ccagtgcctg
gtgtgcgtgc	cctgggacgc
240	
acggccgccc	cccgcgccc
cctccttccg	ccaggtgtcc
tgctgaagg	agctggtggc
300	
ccgagtgtgc	cagaggctgt
gcgagcgcg	cgcaagaac
gtgctggcct	tcggcttcgc
360	
gctgctggac	ggggcccgcg
ggggccccc	cgaggccttc
accaccagcg	tgcgagcta
420	
cctgcccac	acggtgaccg
acgcactgcg	ggggagcggg
gcgtgggggc	tgctgctgcg
480	
ccgcgtgggc	gacgacgtgc
tggttcacct	gctggcacgc
tgcgcgctct	ttgtgctggt
540	
ggctcccagc	tgcgcttacc
aggtgtgcgg	gccgcgctg
taccagctcg	gcgctgccac
600	
tcaggcccg	cccccgccac
acgctagtgg	accccgaaag
cgctctgggat	gcgaacgggc
660	
ctggaaccat	agcgtcaggg
aggccgggg	ccccctgggc
ctgccagccc	cgggtgcgag
720	
gaggcgcg	ggcagtgcca
gccgaagtct	gccgttgccc
aagaggccca	ggcgtggcgc
780	
tgcccctgag	ccggagcgga
cgcccgttgg	gcaggggtcc
tgggcccacc	cgggcaggac
840	
gcgtggaccg	agtgaccgtg
gtttctgtgt	ggtgtcacct
gccagaccgc	ccgaagaagc
900	
cacctctttg	gaggggtgcg
tctctggcac	gcgccactcc
cacctatccg	tgggccgcca
960	
gcaccacgcg	ggccccccat
ccacatcgcg	gccaccacgt
ccctgggaca	cgcttgttcc
1020	
cccgggtgtac	gccgagacca
agcacttcct	ctactcctca
ggcgacaagg	agcagctgcg
1080	
gccctccttc	ctactcagct
ctctgaggcc	cagcctgact
ggcgctcgga	ggctcgtgga
1140	
gaccatcttt	ctgggttcca
ggccctggat	gccagggact
ccccgcaggt	tgccccgcct
1200	
gccccagcgc	tactggcaaa
tgcgggccct	gtttctggag
ctgcttggga	accacgcgca
1260	
gtgcccctac	ggggtgtctc
tcaagacgca	ctgcccgcgtg
cgagctgcgg	tcaccccgagc
1320	
agccggtgtc	tgtgcccggg
agaagcccca	gggctctgtg
gcggccccc	aggaggagga
1380	

IMMC_143_PCT.US.ST25.txt

cacagacccc	cgtcgcctgg	tgcagctgct	ccgccagcac	agcagcccct	ggcaggtgta	1440
cggttcctg	cgggcctgcc	tgcgccggct	ggtgccccca	ggcctctggg	gctccaggca	1500
caacgaacgc	cgcttcctca	ggaacaccaa	gaagtctcatc	tccctgggga	agcatgccaa	1560
gctctcgctg	caggagctga	cgtggaagat	gagcgtgcgg	gactgcgctt	ggctgcgcag	1620
gagcccaggg	gttggctgtg	ttccggccgc	agagcaccgt	ctgcgtgagg	agatcctggc	1680
caagttcctg	cactggctga	tgagtgtgta	cgtcgtcgag	ctgctcaggt	ctttctttta	1740
tgctacggag	accacgtttc	aaaagaacag	gctctttttc	taccggaaga	gtgtctggag	1800
caagttgcaa	agcattggaa	tcagacagca	cttgaagagg	gtgcagctgc	gggagctgtc	1860
ggaagcagag	gtcaggcgagc	atcgggaagc	caggccccgc	ctgctgacgt	ccagactccg	1920
cttcatcccc	aagcctgacg	ggctgcggcc	gattgtgaac	atggactacg	tcgtgggagc	1980
cagaacgttc	cgagagaaaa	agagggccga	gcgtctcacc	tcgaggggtga	aggcactgtt	2040
cagcgtgctc	aactacgagc	gggcgcggcg	ccccggcctc	ctgggcgcct	ctgtgctggg	2100
cctggacgat	atccacaggg	cctggcgcac	cttcgtgctg	cggtgtgcggg	cccaggaccc	2160
gccgcctgag	ctgtactttg	tcaaggtgga	tgtgacgggc	gcgtacgaca	ccatccccca	2220
ggacaggctc	acggagggtca	tcgccagcat	catcaaacc	cagaacacgt	actgcgtgcg	2280
tcggtatgcc	gtggtccaga	aggccgcccc	tgggcacgtc	cgcaaggcct	tcaagagcca	2340
cgctcttacc	ttgacagacc	tccagccgta	catgcgacag	ttcgtggctc	acctgcagga	2400
gaccagcccc	ctgaggggatg	ccgtcgtcat	cgagcagagc	tcctccctga	atgaggccag	2460
cagtggcctc	ttcgacgtct	tcctacgctt	catgtgccac	cacgccgtgc	gcatcagggg	2520
caagtcctac	gtccagtgcc	aggggatccc	gcagggtccc	atcctctcca	cgctgctctg	2580
cagcctgtgc	tacggcgaca	tggagaacaa	gctgtttgcg	gggattcggc	gggacgggct	2640
gctcctgcgt	ttggtggatg	atttcttggt	ggtgacacct	cacctaccc	acgcgaaaac	2700
cttcctcagg	accctgggtcc	gaggtgtccc	tgagtatggc	tgctgtgtga	acttgcgga	2760
gacagtgggtg	aacttccttg	tagaagacga	ggccctgggt	ggcacggctt	ttgttcagat	2820
gccggcccac	ggcctattcc	cctgggtgcgg	cctgctgctg	gatacccgga	ccctggaggt	2880
gcagagcgac	tactccagct	atgcccggac	ctccatcaga	gccagtctca	ccttcaaccg	2940
cggttcctca	gctgggagga	acatgcgtcg	caaactcttt	ggggctcttg	ggctgaagtg	3000
tcacagcctg	tttctggatt	tgcaggtgaa	cagcctccag	acgggtgtgca	ccaacatcta	3060
caagatcctc	ctgctgcagg	cgtaacaggt	tcacgcatgt	gtgctgcagc	tcccatttca	3120
tcagcaagtt	tggagaacc	ccacattttt	cctgcgcgtc	atctctgaca	cggcctccct	3180
ctgctactcc	atcctgaaag	ccaagaacgc	agggatgtcg	ctgggggcca	agggcgccgc	3240
cggccctctg	ccctccgagg	ccgtgcagtg	gctgtgccac	caagcattcc	tgctcaagct	3300

IMMC 143 PCT.US.ST25.txt

gactcgacac cgtgtcacct acgtgccact cctgggggtca ctcaggacag cccagacgca 3360
 gctgagtcgg aagctcccgg ggacgacgct gactgccctg gaggccgag ccaaccggc 3420
 actgccctca gacttcaaga ccatcctgga ctgatggcca cccgcccaca gccaggccga 3480
 gagcagacac cagcagcccct gtcacgccgg gctctacgtc ccagggaggg aggggaggcc 3540
 cacaccagg cccgcaccgc tgggagtctg aggcctgagt gagtgtttgg ccgaggcctg 3600
 catgtccggc tgaaggctga gtgtccggct gaggcctgag cgagtgtcca gccaaaggct 3660
 gagtgtccag cacacctgcc gtcttcactt cccacacaggc tggcgctcgg ctccacccca 3720
 gggccagctt ttcctcacca ggagcccggc ttccactccc cacataggaa tagtccatcc 3780
 ccagattcgc cattgttcac ccctcgccct gccctccttt gccttccacc cccaccatcc 3840
 aggtggagac cctgagaagg accctgggag ctctgggaat ttggagtgac caaagggtgtg 3900
 ccctgtacac aggcgaggac cctgcacctg gatgggggtc cctgtgggtc aaattggggg 3960
 gaggtgctgt gggagtaaaa tactgaatat atgagttttt cagttttgaa aaaaa 4015

<210> 49
 <211> 782
 <212> DNA
 <213> Human

<400> 49
 aggggcctta gcgtgccgca tcgccgagat ccagcgccca gagagacacc agagaaccca 60
 ccatggcccc ctttgagccc ctggcttctg gcatcctgtt gttgctgtgg ctgatagccc 120
 ccagcagggc ctgcacctgt gtcccacccc acccacagac ggcttctgc aattccgacc 180
 tcgtcatcag ggccaagttc gtggggacac cagaagtcaa ccagaccacc ttataccagc 240
 gttatgagat caagatgacc aagatgtata aagggttcca agccttaggg gatgccgctg 300
 acatccggtt cgtctacacc cccgccatgg agagtgtctg cggatacttc cacagggtccc 360
 acaaccgcag cgaggagttt ctcatctgtg gaaaactgca ggatggactc ttgcacatca 420
 ctacctgcag tttcgtgggt ccctggaaca gcctgagctt agctcagcgc cggggcttca 480
 ccaagacctt cactgttggc tgtgaggaat gcacagtgtt tccctgttta tccatcccct 540
 gcaaactgca gagtggcact cattgcttgt ggacggacca gtcctccaa ggctctgaaa 600
 agggcttcca gtcccgtcac cttgcctgcc tgccctggga gccagggctg tgcacctggc 660
 agtcccctgc gtcccagata gcctgaatcc tgcccgaggt ggaactgaag cctgcacagt 720
 gtccaccctg ttcccactcc catctttctt ccggacaatg aaataaagag ttaccaccca 780
 gc 782

<210> 50
 <211> 1075

IMMC 143 PCT.US.ST25.txt

<212> DNA

<213> Human

<400> 50

cgcagcaaac acatccgtag aaggcagcgc ggccgccgag agccgcagcg ccgctcgccc	60
gccgcccccc accccgccgc cccgcccggc gaattgcgcc ccgcgcccct cccctcgcg	120
ccccgagaca aagaggagag aaagtttgcg cggccgagcg gggcaggtga ggagggtgag	180
ccgcgcggga ggggcccgcc tcggccccgg ctacgcccc gcccgcgccc ccagcccgcc	240
gccgcgagca gcgcccggac cccccagcgg cgccccccgc ccgcccagcc ccccgggccc	300
ccatgggcgc cgcggcccgc accctgcggc tggcgctcgg cctcctgctg ctggcgacgc	360
tgcttcgccc ggccgacgcc tgcagctgct ccccggtgca cccgcaacag gcgttttgca	420
atgcagatgt agtgatcagg gccaaagcgg tcagtgaaga ggaagtggac tctggaaacg	480
acatttatgg caaccctatc aagaggatcc agtatgagat caagcagata aagatgttca	540
aagggcctga gaaggatata gagtttatct acacggcccc ctctctggca gtgtgtgggg	600
tctcgctgga cgttgaggga aagaaggaat atctcattgc aggaaaggcc gagggggacg	660
gcaagatgca catcaccctc tgtgacttca tcgtgccctg ggacaccctg agcaccaccc	720
agaagaagag cctgaaccac aggtaccaga tgggctgcga gtgcaagatc acgcgctgcc	780
ccatgatccc gtgctacatc tcctccccgg acgagtgcct ctggatggac tgggtcacag	840
agaagaacat caacgggcac caggccaagt tcttcgcctg catcaagaga agtgacggct	900
cctgtgcgtg gtaccgcggc gcggcgcccc ccaagcagga gtttctcgac atcgaggacc	960
cataagcagg cctccaacgc ccctgtggcc aactgcaaaa aaagcctcca agggtttcga	1020
ctggtccagc tctgacatcc cttcctggaa acagcatgaa taaaacactc atccc	1075

<210> 51

<211> 5510

<212> DNA

<213> Human

<220>

<221> misc_feature

<222> (2780)..(2780)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (2791)..(2791)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (3405)..(3405)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (3470)..(3470)

<223> n is a, c, g, or t

<400> 51

tagagacggg gtctcgctat gttgcccagg ctggctcca actcctaggc tccagcgatc	60
ctcccgctc ggcctcccaa tgtgctgcga atacagactc cagccaccgc acacagccta	120
cttttatttc tttgaaaaat gaattcgagg gtaaaggggc ggggttgagg cagatgccag	180
aatctgttcg cttcaaccaa gcagccaggc tgccgtgcca gaaagccggc actcagtttc	240
ctcaggaaaa cgaagctaag gctcccattc ccctcgctaa caacgtcaga acagaggaca	300
gttttttagat ttcagggatc ttaaatagat tggcagttcc tggagaataa acatcctttg	360
cttttctcct gcacactttt gcctcaggcc accccttccc gcttccaaag cccatctctt	420
ccaagctttc cgcacgagaa aacaagtgaag cccttctcat tggccagatt ccctgtcaat	480
ctctccgcta tgacgccgag tggcgctttt tgaagcctct ctagtcccg ctcctaacc	540
tgattggttt attcaaaaca accccggcca actcagccgt tcataggtgg atataaaagg	600
caagctacga ttggttcttc tggacggaga cggtgagagc gagtcaggga ttggctggtc	660
tgcttcgggc gggctaaagg aagggtcaag tggagctctc ctaaccgacg cgcgtctgtg	720
gagaagcggc ttggctcggg gtggctctct ggggtcctgc ctgttttagtc gctttcaggg	780
ttcttgagcc cttcacgac cgtcaccatg gaagtgtcac cattgcaggc acggctcgcg	840
ggggggactg gcggtggagc ctccgcgcgg cccgggcatc tctctggccg cccgtgacgg	900
gtgaagctct ggggctgcgg tcaggccggc gaccggcttg ggagcccata ttctccattc	960
ccggttccgg ggtgatcgtg gagaggcgga agccccttct ggtgctagta gtgaagtatg	1020
accggcttc cagggtgtcg tgcgtgttg ccctgtttct aggggcagga gtccgttggt	1080
cccgtagtg atccatgta cagcggccc ggtgcgacgt tattgagtcg cgcgtacaga	1140
tgctttcccc tcctgcccgc tgcttgaaaa cggctctgaa tgtccccgat cttggaaagg	1200
gcagagccta gcacagtgtt tctctggagc agctggccag cttacaaaag cgtccccttc	1260
ctgagttcac aacgctcagg tggccaagg attgaacgga tagccgccca aactgctgct	1320
gccgaactag aattatttac ggtgtcgtgt gtcgggaca ccgtaaataa ttataataa	1380
taggcactcg gtaaataatg tatgcaggaa ctgaaagaag tgggtgtatt ttattgatga	1440
catctaccat gttgctcaag aaaagaggtt tccagacaga cccacttggt gagataatat	1500
gtgtctgttt aacctgacac ctggggacct ggccgcagcg aatttaaatt gtcctatttg	1560
tacaaaactg gcaactccac cactgcctac taacagattg caatgcatgt tgacatctca	1620
ctatggtagg cattttgttc ctagtttagg gtacacttat gattaaaaat tcccttcttt	1680
ctctcttttt ttttaattgc tagcctgtaa atgaaaatat gcaagtcaac aaaataaaga	1740

IMMC 143 PCT.US.ST25.txt

aaaatgaaga	tgctaagaaa	agactgtctg	ttgaaagaat	ctatcaaaag	aaaacacaat	1800
tggaacatat	tttgctccgc	ccagacacct	acattgggtc	tgtggaatta	gtgaccagg	1860
taaaatcaag	ctcatcaaag	gcagttaacc	tagtagttga	aatggatact	cttctttctg	1920
tacctttcat	gtactgagtg	tgacctttct	gtatctctca	tgtactgagt	gtcactggaa	1980
ctggcctaaa	tatggtaata	cttaatatga	acactttatg	gtaatcatga	taacagaaca	2040
atgaatatag	aataaaaaata	acgggtatttc	tttgccttat	ttctagcaaa	tgtggggttta	2100
cgatgaagat	gttggcatta	actatagggg	agtcactttt	gttcctgggt	tgtacaaaat	2160
ctttgatgag	attctaggtg	agtaaatcct	ttaatataaa	gatctggtca	aatctttcat	2220
aagaagtatc	attccaaata	aaaatttaaa	aaagataaaa	gtaaaaacaa	aaagtatcat	2280
ttttaccaaa	cctgctgtag	ccagggtctc	tgtcatttca	atcagttgat	aaaggtgagc	2340
tggtttcctg	gagcccagga	ggttgagctt	ctcgtagaaa	cagtactatg	gacaaaaatt	2400
gctaaattaa	caccttggtt	atgccactcc	tgtgctgttt	gggaactttt	ttttctatat	2460
cttacttaga	gttacagaat	gttttttaaa	acactaattt	cttacaaatg	tatattttat	2520
tttctttcag	ttaatgctgc	ggacaacaaa	caaagggacc	caaaaatgtc	ttgtattaga	2580
gtcacaaattg	atccgtacgt	cttttgctta	gtttttgtta	tgtagctcgt	tgctattggt	2640
agctgcatgt	attttgatta	ctgggtgaagt	tggcttttcc	taaacagaag	ttgagaaaag	2700
tacacaaaag	cagaatgcta	aaatgaaaaa	cctatggata	cccaccacct	aatccaaca	2760
gttgccaacg	ttttgtccan	attttctcca	nctttttttg	aattatttaa	tttttttaaa	2820
ggaaggggtc	ttgctatttt	gcctgggctg	gtcttaaaac	tcctggcctg	aagcaatcct	2880
ccagtgttgg	cattatgggt	gtgtgccatg	gcacgcggcc	tatttgctct	ggatcatttc	2940
aaaataaatt	acaggactca	cgacatctaa	tccctaaata	tttgagcaag	caccttcagt	3000
aattgcttta	agtattctgg	catctggagt	tttaactttt	tctcatgatg	ctattcaaac	3060
agtaaaccag	taggtgggtg	tagagaataa	tttgatctga	catttctgct	tataaatgcg	3120
gggtgtccct	tagtgggtga	tcagggtgct	tatttcactt	ttttgttagt	ctgattgatt	3180
atgacaaaagt	atacctggat	tttcctaagg	actcaatatc	atagtcttta	aaaaatggtg	3240
agctagggcc	aggcacggtg	gctcatgcct	gtgatcccag	cactttggga	ggccgatgcg	3300
ggcggatcac	aagggtcagga	gatcaagacc	atcctggcta	acacggtgaa	accctgtctc	3360
cactaaaaat	acaaaaaatt	agcccgggtg	ggtgatggac	acctntagtc	ccagctattc	3420
aggaggctga	agtgggagga	ttgcttgagc	ccaggagggtc	aagactgcan	taagctgtga	3480
tcctgccatt	acagtgcagc	ctgggtgaca	gagagagatg	ctgtctcaaa	aaaggagtgg	3540
gagtgggtga	taataatgtt	tccagattgt	ccttttcttt	ccattgggca	taaatcattt	3600
ccctctgttt	atcctaacat	tttaaaattt	tgtatttttt	caacattatc	agtgtctatt	3660

IMMC 143 PCT.US.ST25.txt

cagggtgttg	aaaaggtttt	tttttcctct	tgactcctat	ttcaggaatg	tcaggaacta	3720
agcatggtg	gaaatgttcc	tgctgaattt	cagaggggat	atatgaaaag	tgccaaaaaa	3780
attgagggt	gggtatggtg	gctcacatct	ataaccccaa	cactttgagc	agttctcctg	3840
cttcagcctc	ccaagtagct	ggaatcacag	gcatgcgcta	ccatgcctgg	ctaatttttt	3900
ttatttttag	tagagacggt	ttcaacatgt	tggccagaac	tcctggcctc	aagtgatttg	3960
ccctcctcag	cctcccaaag	tgctgggatt	acaggcacag	gccaccgcgc	ccagcctgaa	4020
tatacatatt	ttagaaataa	tagtatttaa	atatttttaa	atgttaagca	ttcgatttga	4080
tgtgttgtaa	gatacaattt	tcaatctttt	ttttcttagg	gaaaacaatt	taattagtat	4140
atggaataat	ggaaaaggta	ttcctgttgt	tgaacacaaa	gttgaaaaga	tgtatgtccc	4200
agctctcata	tttggacagc	tcctaacttc	tagtaactat	gatgatgatg	aaaagaaagt	4260
gacaggtaga	gtattgaggg	gaaataacat	atttgttgct	aaaaatatat	atattttaa	4320
gactgtctgt	ggcatgaggg	ttaaagatat	ggaaataaat	ctctataatt	gaatagctct	4380
gccagtgatt	aagaaataaa	gctgtcaatg	agatagtaac	aataaaaatag	tgtttcatat	4440
ttatttgccc	aggtggtcga	aatggctatg	gagccaaatt	gtgtaacata	ttcagtacca	4500
aatttactgt	ggaaacagcc	agtagagaat	acaagaaaat	gttcaaacag	gcaagtaa	4560
aagtgtcttg	taccttaatg	ataaatggta	gtagtatagc	catttataat	ggcattaatg	4620
attggtttaa	tttaacataa	tttataagct	attgaagtat	ggaaaattat	aagcatatat	4680
attaggttat	taggactcat	aaatttatgt	tatttacttc	cagtttggtga	gatgacttga	4740
atttttcatg	tttccttatt	ctttacttcc	atagacatgg	atggataata	tgggaagagc	4800
tggtgagatg	gaactcaagc	ccttcaatgg	agaagattat	acatgtatca	cctttcagcc	4860
tgatttgtct	aagttttaaaa	tgcaaagcct	ggacaaagat	attggtgcac	taatggtcag	4920
aagagcatat	gatattgctg	gatccaccaa	agatgtcaaa	gtctttctta	atggaaataa	4980
actgccagtg	agtatttttcc	tggatgttaa	ggataataag	ggattttgta	atcattgtca	5040
agtgcaaaat	tgaattttttt	ccccctccat	atgtttttgt	ttgtttgttt	gtttgtttgt	5100
ttgagacaga	gtctcacact	gttgcccggg	ctggagtgca	gtggcacgat	ctcggctcac	5160
cgcaacctcc	acctcccagg	ttcacgcaat	tctcctgcct	cagcctccca	agtagctggg	5220
attacagggtg	cctgccacca	cacctggcta	attttttgta	ttttcagtag	agacaggttc	5280
actatgttgg	ccaggctggg	ctcgaacacc	agacctcatg	atccacccgt	cttggcctcc	5340
caaagtgcctg	ggattacagg	catgagccac	tgcacctggc	caaccatgtg	tatttcttac	5400
cacttctcac	atatgttctt	gaaaagagaa	tggtagcca	cattttttta	tccgctcatt	5460
ttaaacttac	cgatggattt	ccttctcaaa	gaaacaccaa	aaataaatat		5510

<210> 52
 <211> 5189
 <212> DNA
 <213> Human

<400> 52
 atggccaagt cgggtggctg cggcgcgga gccggcgtgg gcggcggcaa cggggcactg 60
 acctgggtga acaatgctgc aaaaaagaa gagtcagaaa ctgccaacaa aaatgattct 120
 tcaaagaagt tgtctgttga gagagtgtat cagaagaaga cacaacttga acacattctt 180
 cttcgtcctg atacatatat tgggtcagtg gagccattga cgcagttcat gtgggtgtat 240
 gatgaagatg taggaatgaa ttgcaggag gttacctttg tgccaggttt atacaagatc 300
 tttgatgaaa ttttggtaa tgctgctgac aataaacaga gggataagaa catgacttgt 360
 attaaagttt ctattgatcc tgaatctaac attataagca tttggaataa tgggaaaggc 420
 attccagtag tagaacacaa ggtagagaaa gtttatgttc ctgctttaat ttttggacag 480
 cttttaacat ccagtaacta tgatgatgat gagaaaaaag ttacagggtg tcgtaatggg 540
 tatggtgcaa aactttgtaa tattttcagt acaaagtta cagtagaaac agcttgcaaa 600
 gaatacaaac acagttttaa gcagacatgg atgaataata tgatgaagac ttctgaagcc 660
 aaaattaaac attttgatgg tgaagattac acatgcataa cattccaacc agatctgtcc 720
 aaatttaaga tggaaaaact tgacaaggat attgtggccc tcatgactag aagggcatat 780
 gatttggtg gttcgtgtag aggggtcaag gtcattgtta atggaaagaa attgcctgta 840
 aatggatttc gcagttatgt agatctttat gtgaaagaca aattggatga aactgggggtg 900
 gccctgaaag ttattcatga gcttgcaaat gaaagatggg atgtttgtct cacattgagt 960
 gaaaaaggat tccagcaaat cagctttgta aatagtattg caactacaaa aggtggacgg 1020
 cacgtggatt atgtggtaga tcaagttgtt ggtaaaactga ttgaagtagt taagaaaaag 1080
 aacaaagctg gtgtatcagt gaaaccattt caagtaaaaa accatatatg ggtttttatt 1140
 aattgcctta ttgaaaatcc aacttttgat tctcagacta aggaaaacat gactctgcag 1200
 cccaaaagtt ttgggtctaa atgccagctg tcagaaaaat tttttaaaagc agcctctaatt 1260
 tgtggcattg tagaaaagtat cctgaactgg gtgaaattta aggctcagac tcagctgaat 1320
 aagaagtgtt catcagtaaa atacagtaaa atcaaaggta ttcccaaact ggatgatgct 1380
 aatgatgctg gtggtaaaca ttccctggag tgtacactga tattaacaga gggagactct 1440
 gccaaatcac tggctgtgtc tggattaggt gtgattggac gagacagata cggagttttt 1500
 ccactcaggg gcaaaattct taatgtacgg gaagcttctc ataaacagat catggaaaat 1560
 gctgaaataa ataataattat taaaatagtt ggtctacaat ataagaaaag ttacgatgat 1620
 gcagaatctc tgaaaacctt acgctatgga aagattatga ttatgaccga tcaggatcaa 1680

gatggttctc	acataaaagg	cctgcttatt	aatttcaccc	atcacattg	gccatcactt	1740
ttgaagcatg	gttttcttga	agagttcatt	actcctattg	taaaggcaag	caaaaataag	1800
caggaacttt	ccttctacag	tattcctgaa	tttgacgaat	ggaaaaaaca	tatagaaaac	1860
cagaaagcct	ggaaaataaa	gtactataaa	ggattgggta	ctagtacagc	taaagaagca	1920
aaggaatatt	ttgctgatat	ggaaaggcat	cgcatcttgt	ttagatatgc	tggtcctgaa	1980
gatgatgctg	ccattacctt	ggcatttagt	aagaagaaga	ttgatgacag	aaaagaatgg	2040
ttaacaaatt	ttatggaaga	ccggagacag	cgtaggctac	atggcttacc	agagcaattt	2100
ttatatggta	ctgcaacaaa	gcatttgact	tataatgatt	tcatcaacaa	ggaattgatt	2160
ctcttctcaa	actcagacaa	tgaaagatct	ataccatctc	ttgttgatgg	ctttaaacct	2220
ggccagcgga	aagttttatt	tacctgtttc	aagaggaatg	ataaacgtga	agtaaaagtt	2280
gcccagttgg	ctggctctgt	tgctgagatg	tcggcttatc	atcatggaga	acaagcattg	2340
atgatgacta	ttgtgaattt	ggctcagaac	tttgtgggaa	gtaacaacat	taacttgctt	2400
cagcctattg	gtcagtttgg	aactcggctt	catggtggca	aagatgctgc	aagccctcgt	2460
tatatattca	caatgttaag	cactttagca	aggctacttt	ttcctgctgt	ggatgacaac	2520
ctccttaagt	tcctttatga	tgataatcaa	cgtgtagagc	ctgagtggta	tattcctata	2580
attcccatgg	ttttaataaa	tggtgctgag	ggcattggta	ctggatgggc	ttgtaaacta	2640
cccaactatg	atgctaggga	aattgtgaac	aatgtcagac	gaatgctaga	tggcctggat	2700
cctcatccca	tgcttccaaa	ctacaaaaac	tttaaaggca	cgattcaaga	acttgggtcaa	2760
aaccagtatg	cagtcagtgg	tgaaatattt	gtagtggaca	gaaacacagt	agaaattaca	2820
gagcttcag	ttagaacttg	gacacaggta	tataaagaac	aggttttaga	acctatgcta	2880
aatggaacag	ataaaacacc	agcattaatt	tctgattata	aagaatatca	tactgacaca	2940
actgtgaaat	ttgtggtgaa	aatgactgaa	gagaaactag	cacaagcaga	agctgctgga	3000
ctgcataaag	tttttaaaact	tcaaactact	cttacttgta	attccatggg	actttttgat	3060
catatgggat	gtctgaagaa	atatgaaact	gtgcaagaca	ttctgaaaga	attctttgat	3120
ttacgattaa	gttattacgg	tttacgtaag	gagtggcttg	tgggaatggt	gggagcagaa	3180
tctacaaagc	ttaacaatca	agcccgtttc	attttagaga	agatacaagg	gaaaattact	3240
atagagaata	gggtcaaagaa	agatttgatt	caaagttag	tccagagagg	ttatgaatct	3300
gaccagtgta	aagcctggaa	agaagcacia	gaaaaggcag	cagaagagga	tgaaacacia	3360
aaccagcatg	atgatagttc	ctccgattca	ggaactcctt	caggcccaga	ttttaattat	3420
attttaaata	tgtctctgtg	gtctcttact	aaagaaaaag	ttgaagaact	gattaaacag	3480
agagatgcaa	aagggcgaga	gggtcaatgat	cttaaaagaa	aatctccttc	agatctttgg	3540
aaagaggatt	tagcggcatt	tggtgaagaa	ctggataaag	tggaatctca	agaacgagaa	3600

IMMC 143 PCT.US.ST25.txt

gatgttcttg ctggaatgtc tggaaaagca attaaaggta aagttggcaa acctaagggtg 3660
aagaaactcc agttggaaga gacaatgccc tcaccttatg gcagaagaat aattcctgaa 3720
attacagcta tgaaggcaga tgccagcaaa aagttgctga agaagaagaa gggatgatctt 3780
gatactgcag cagtaaaagt ggaatttgat gaagaattca gtggagcacc agtagaagggt 3840
gcaggagaag aggcattgac tccatcagtt cctataaata aagggtcccaa acctaagagg 3900
gagaagaagg agcctggtac cagagtgaga aaaacaccta catcatctgg taaacctagt 3960
gcaaagaaag tgaagaaacg gaatccttgg tcagatgatg aatccaagtc agaaagtgat 4020
ttggaagaaa cagaacctgt ggttattcca agagattctt tgcttaggag agcagcagcc 4080
gaaagaccta aatacacatt tgatttctca gaagaagagg atgatgatgc tgatgatgat 4140
gatgatgaca ataatgattt agaggaattg aaagttaaag catctcccat aacaaatgat 4200
ggggaagatg aatttgttcc ttcagatggg ttagataaag atgaatatac attttcacca 4260
ggcaaatcaa aagccactcc agaaaaatct ttgcatgaca aaaaaagtca ggattttgga 4320
aatctcttct catttccttc atattctcag aagtcagaag atgattcagc taaatttgac 4380
agtaatgaag aagattctgc ttctgttttt tcaccatcat ttggtctgaa acagacagat 4440
aaagttccaa gtaaaacggg agctgctaaa aagggaac cgtcttcaga tacagtcctt 4500
aagcccaaga gagcccaaaa acagaagaaa gtagtagagg ctgtaaaactc tgactcggat 4560
tcagaatttg gcattccaaa gaagactaca acacaaaag gtaaaggccg aggggcaaag 4620
aaaaggaaag catctggctc tgaaaatgaa ggcgattata accctggcag gaaaacatcc 4680
aaaacaaca gcaagaaacc gaagaagaca tcttttgatc aggattcaga tgtggacatc 4740
ttcccctcag acttccctac tgagccacct tctctgccac gaaccggtcg ggctaggaaa 4800
gaagtaaaat attttgaga gtctgatgaa gaagaagatg atgttgattt tgcaatgttt 4860
aattaagtgc ccaaagagca caaacatttt tcaacaata tcttggttg tccttttgtc 4920
ttctctgtct cagacttttg tacatctggc ttattttaat gtgatgatgt aattgacgggt 4980
tttttattat tgtggtaggc cttttaacat ttgttctta cacatacagt tttatgctct 5040
ttttactca ttgaaatgtc acgtactgtc tgattggctt gtagaattgt tatagactgc 5100
cgtgcattag cacagatttt aattgtcatg gttacaaact acagacctgc tttttgaaat 5160
gaaatttaaa cattaaaaat ggaactgtg 5189

<210> 53
<211> 2805
<212> DNA
<213> Human

<400> 53
cgggtctgat agtccctacc tgtcaggact ggtgttagga tgagataatg tttgtgaact 60

IMMC 143 PCT.US.ST25.txt

gtaaacaatat	ataaacgtgt	gctactgtga	gaactggaac	aaagaagaga	gggagtgaga	120
gaaatcaagg	gagggctggg	gctgggaaaag	aacgaaaagg	gagtcgcgta	tagaggagag	180
gcgacagtcg	cgagccacac	tttgcaatga	aactcttttag	actttctgcc	gggagagcgg	240
cccagacgcg	ccaggtctgt	agcaggaggc	cgcgagggcg	ggtccccaga	agcctacagg	300
tgagtatcgg	ttctccccctt	cccggctttc	ggtccggagg	aggcgggagc	agcttcacctg	360
ttctgatcct	atcgcgggcg	gcgaggggcc	ggcttggcct	tccgtgggac	ggggaggggg	420
gcgggatgtg	tcacccaaat	accagtgggg	acggtcggtg	gtggaaccag	ccgggcaggt	480
cgggtagagt	ataagagccg	gagggagcgg	ccggggcgca	gacgcctgca	gaccatccca	540
gacgccggag	cccagagcccc	gacgagtcct	cgcgccctcat	ccgcccgcgt	ccggtccgcg	600
ttcctccgcc	ccaccatggc	tcggggcccc	ggcctcgcg	cgccaccgct	gcggctgccg	660
ctgctgctgc	tggtgctggc	ggcggtgacc	ggccacacgg	ccgcgcagga	caactgcacg	720
tgccccacca	acaagatgac	cggtgtgcagc	cccagcggcc	ccggcggccg	ctgccagtgc	780
cgcgcgctgg	gctcgggcat	ggcggtcgac	tgctccacgc	tgacctcaa	gtgtctgctg	840
ctcaaggcgc	gcatgagcgc	ccccagaac	gcccgcacgc	tggtgcggcc	gagtgcacac	900
gcgctcgtgg	acaacgatgg	cctctacgac	cccgaactgcg	accccgaggg	ccgcttcaag	960
gcgcgccagt	gcaaccagac	gtcgggtgtgc	tggtgcgtga	actcgggtggg	cgtgcgccgc	1020
acggacaagg	gcgacctgag	cctacgctgc	gatgagctgg	tgcgcaccca	ccacatcctc	1080
attgacctgc	gccaccgccc	caccgcccgc	gccttcaacc	actcagacct	ggacgccgag	1140
ctgaggcggc	tcttccgcga	gcgctatcgg	ctgcaccca	agttcgtggc	ggccgtgcac	1200
tacgagcagc	ccaccatcca	gatcgagctg	cggcagaaca	cgtctcagaa	ggccgccggt	1260
gaagtggata	tcggcgatgc	cgctactac	ttcgagaggg	acatcaaggg	cgagtctcta	1320
ttccagggcc	gcggcggcct	ggacttgcg	gtgcgcggag	aaccctgca	ggtggagcgc	1380
acgctcatct	attacctgga	cgagattccc	ccgaagtct	ccatgaagcg	cctcaccgcc	1440
ggcctcatcg	ccgtcatcgt	ggtggtcgtg	gtggccctcg	tcgccggcat	ggccgtcctg	1500
gtgatcacca	accggagaaa	gtcggggaag	tacaagaagg	tggagatcaa	ggaactgggg	1560
gagttgagaa	aggaaccgag	cttgtaggta	cccggcgggg	caggggatgg	ggtgggggtac	1620
cggatttcgg	tatcgtcca	gaccaagtg	agtcacgctt	cctgattcct	cggcgcaaag	1680
gagacgttta	tcctttcaaa	ttcctgcctt	ccccctccct	tttgcgca	caccaggttt	1740
aatagatcct	ggcctcaggg	tctcctttct	ttctcacttc	tgtcttgagg	gaagcatttc	1800
taaaatgtat	cccctttcgg	tccaacaaca	ggaaacctga	ctggggcagt	gaaggaaggg	1860
atggcacagc	gttatgtgta	aaaaacaagt	atctgtatga	caaccggga	tcgtttgcaa	1920

IMMC 143 PCT.US.ST25.txt

gtaactgaat ccattgcgac attgtgaagg cttaaagtgaag tttagatggg aaatagcggt	1980
gttatcgctt tgggttttaa ttatttgatg agttccactt gtatcatggc ctacccgagg	2040
agaagaggag tttgttaact gggcctatgt agtagcctca tttaccatcg tttgtattac	2100
tgaccacata tgcttgtcac tgggaaagaa gcctgtttca gctgcctgaa cgcagtttgg	2160
atgtctttga ggacagacat tgcccggaaa ctccagtctat ttattcttca gcttgccctt	2220
actgccactg atattggtaa tgttcttttt tgtaaaatgt ttgtacatat gttgtctttg	2280
ataatgttgc tgtaattttt taaaataaaa cacgaattta ataaaatatg ggaaaggcac	2340
aaaccagaag tcggcatttg tgaaaagtcc ctccagattt ctatcacttt ggtctcta	2400
ttcccaagac ttgtattttt tttttatttc aaattataac actttttttt cccccagaag	2460
tgggtgtttc atgttgctac tctggtgtgt cccaagatat cctaactggc cagtgtaaat	2520
gctattcttt ctaaataaga ttatttggaa acttccttca aactgcagga gggcgagctc	2580
tgagggcacg agaagctaaa actagctgct tttgatgaaa aagagtgccg gtctttggtc	2640
atctctaaac aaggcttatc accaatggag acagaaaact ctagttcaag agctgtacct	2700
cctttgaatc ccagccctac tcgaaataag tggactatt tccatttagc ctttgagcaa	2760
atcacttaac tcaaaggcgt tgtggctcta agattaaacg acttt	2805

<210> 54
 <211> 1536
 <212> DNA
 <213> Human

<400> 54	
gggggggggg ggaccacttg gcctgcctcc gtcccggcgc gccacttggc ctgcctccgt	60
cccgccgcgc cacttcgcct gcctccgtcc ccgcccgcgc gcgccatgcc tgtggccggc	120
tcggagctgc cgcgccggcc cttgcccccc gccgcacagg agcgggacgc cgagccgcgt	180
ccgccgcacg gggagctgca gtacctgggg cagatccaac acatcctccg ctgcggcgctc	240
aggaaggacg accgcacggg caccggcacc ctgtcgggtat tcggcatgca ggcgcgctac	300
agcctgagag atgaattccc tctgctgaca accaaacgtg tgttctggaa ggggtgtttg	360
gaggagtgtc tgtggtttat caagggatcc acaaatgcta aagagctgtc ttccaagggg	420
gtgaaaatct gggatgcaa tggatcccga gacttttttg acagcctggg attctccacc	480
agagaagaag gggacttggg ccagttttat ggcttccagt ggaggcattt tggggcagaa	540
tacagagata tggaatcaga ttattcagga cagggagtgt accaactgca aagagtgatt	600
gacaccatca aaaccaaccc tgacgacaga agaatcatca tgtgcgcttg gaatccaaga	660
gatcttcctc tgatggcgct gcctccatgc catgccctct gccagttcta tgtggtgaac	720
agtgagctgt cctgccagct gtaccagaga tcgggagaca tgggcctcgg tgtgcctttc	780

IMMC 143 PCT.US.ST25.txt

aacatcgcca gctacgccct gctcacgtac atgattgcgc acatcacggg cctgaagcca	840
ggtgacttta tacacacttt gggagatgca catatttacc tgaatcacat cgagccactg	900
aaaattcagc ttcagcgaga acccagacct ttcccaaagc tcaggattct tcgaaaagtt	960
gagaaaattg atgacttcaa agctgaagac tttcagattg aagggtagaa tccgcatcca	1020
actattaataa tggaaatggc tgtttagggg gctttcaaag gagcttgaag gatattgtca	1080
gtcttttaggg gttgggctgg atgccgagggt aaaagttctt tttgctctaa aagaaaaagg	1140
aactaggtca aaaatctgtc cgtgacctat cagttattaa ttttaagga tgttgccact	1200
ggcaaatgta actgtgccag ttctttccat aataaaaaggc tttgagttaa ctcactgagg	1260
gtatctgaca atgctgagggt tatgaacaaa gtgaggagaa tgaaatgtat gtgctcttag	1320
caaaaacatg tatgtgcatt tcaatccac gtacttataa agaagggttg tgaatttcac	1380
aagctatttt tggaatatTT ttagaatatt ttaagaattt cacaagctat tccctcaaat	1440
ctgaggggagc tgagtaacac catcgatcat gatgtagagt gtggttatga actttatagt	1500
tgttttatat gttgctataa taaagaagtg ttctgc	1536

<210> 55
 <211> 1723
 <212> DNA
 <213> Human

<400> 55	
tcgcggaggc ttggggcagc cgggtagctc ggaggtcgtg gcgctggggg ctagcaccag	60
cgctctgtcg ggaggcgag cggttaggtg gaccggtcag cggactcacc ggccagggcg	120
ctcggtgctg gaatttgata ttcatgtatc cgggttttat ccctcttctt ttttcttaaa	180
catttttttt taaaactgta ttgtttctcg ttttaattta tttttgcttg ccattcccca	240
cttgaatcgg gccgacggct tggggagatt gctctacttc cccaaatcac tgtggatttt	300
ggaaaccagc agaaagagga aagaggtagc aagagctcca gagagaagtc gaggaagaga	360
gagacggggg cagagagagc gcgcgggcgt gcgagcagcg aaagcgacag gggcaaagtg	420
agtgacctgc ttttgggggt gaccgccgga gcgcggcggt agccctcccc cttgggatcc	480
cgcagctgac cagtcgcgct gacggacaga cagacagaca ccgccccag cccagctac	540
cacctcctcc ccggccggcg gcggacagtg gacgcggcgg cgagccgcgg gcaggggccc	600
gagccgcgc ccggaggcgg ggtggagggg gtcggggctc gcggcgctgc actgaaactt	660
ttcgtccaac ttctgggctg ttctcgcttc ggaggagccg tgggtccgcgc gggggaagcc	720
gagccgagcg gagccgcgag aagtgtagc tcgggcccggg aggagccgca gccggaggag	780
ggggaggagg aagaagagaa ggaagaggag agggggccgc agtggcgact cggcgctcgg	840
aagccgggct catggacggg tgaggcggcg gtgtgcgcag acagtgtctc agccgcgcgc	900

IMMC 143 PCT.US.ST25.txt

gctccccagg ccctggcccc ggcctcgggc cggggaggaa gagtagctcg ccgaggcgcc	960
gaggagagcg ggccgcccc cagccccgagc cggagaggga gcgcgagccg cgccggcccc	1020
ggtcgggacct ccgaaaccat gaactttctg ctgtcttggg tgcattggag ccttgccttg	1080
ctgctctacc tccaccatgc caagtgggcc caggctgcac ccatggcaga aggaggagg	1140
cagaatcatc acgaagtggg gaagttcatg gatgtctatc agcgcagcta ctgccatcca	1200
atcgagaccc tgggtggacat cttccaggag taccctgatg agatcgagta catcttcaag	1260
ccatcctgtg tgcccctgat gcgatgcggg ggctgctgca atgacgagg cctggagtgt	1320
gtgcccactg aggagtccaa catcaccatg cagattatgc ggatcaaacc tcaccaaggc	1380
cagcacatag gagagatgag cttcctacag cacaacaaat gtgaatgcag accaaagaaa	1440
gatagagcaa gacaagaaaa aaaatcagtt cgaggaaagg gaaaggggca aaaacgaaag	1500
cgcaagaaat cccggtataa gtcctggagc gttccctgtg ggcttgctc agagcggaga	1560
aagcatttgt ttgtacaaga tccgcagacg tgtaaattgtt cctgcaaaaa cacagactcg	1620
cgttgcaagg cgaggcagct tgagttaaac gaacgtactt gcagatgtga caagccgagg	1680
cggtgagccg ggcaggagga aggagcctcc ctcagggttt cgg	1723

<210> 56
 <211> 2304
 <212> DNA
 <213> Human

<400> 56	
gtccccgcag cgccgtcgcg ccctcctgcc gcaggccacc gaggccgccg ccgtctagcg	60
ccccgacctc gccaccatga gagccctgct ggcgcgcttg cttctctgcg tcctggtcgt	120
gagcgactcc aaaggcagca atgaacttca tcaagttcca tcgaactgtg actgtctaaa	180
tggaggaaca tgtgtgtcca acaagtactt ctccaacatt cactgggtgca actgccccaa	240
gaaattcgga gggcagcact gtgaaataga taagtcaaaa acctgctatg aggggaatgg	300
tcacttttac cgaggaaagg ccagcactga caccatgggc cggccctgcc tgccctggaa	360
ctctgccact gtccttcagc aaacgtacca tgcccacaga tctgatgctc ttcagctggg	420
cctggggaaa cataattact gcaggaaccc agacaaccgg aggcgaccct ggtgctatgt	480
gcagggtgggc ctaaaagccgc ttgtccaaga gtgcatgggt catgactgag cagatggaaa	540
aaagccctcc tctcctccag aagaattaaa atttcagtgt ggccaaaaga ctctgaggcc	600
ccgctttaag attattgggg gagaattcac caccatcgag aaccagccct ggtttgcggc	660
catctacagg aggaccggg ggggctctgt cacctacgtg tgtggaggca gcctcatcag	720
cccttgctgg gtgatcagcg ccacacactg cttcattgat tacccaaaga aggaggacta	780
catcgtctac ctgggtcgct caaggcttaa ctccaacacg caaggggaga tgaagtttga	840

IMMC 143 PCT.US.ST25.txt

```

ggtggaaaac ctcacccctac acaaggacta cagcgcgtgac acgcttgctc accacaacga 900
cattgccttg ctgaagatcc gttccaagga gggcaggtgt gcgcagccat cccggactat 960
acagaccatc tgcctgccct cgatgtataa cgatccccag tttggcacia gctgtgagat 1020
cactggcttt ggaaaagaga attctaccga ctatctctat ccggagcagc tgaaaatgac 1080
tgttgtgaag ctgatttccc accgggagtg tcagcagccc cactactacg gctctgaagt 1140
caccacaaaa atgctatgtg ctgctgaccc ccaatggaaa acagattcct gccagggaga 1200
ctcaggggga cccctcgtct gttccctcca aggccgcatg actttgactg gaattgtgag 1260
ctggggccgt ggatgtgccc tgaaggacaa gccaggcgtc tacacgagag tctcacactt 1320
cttaccctgg atccgcagtc acaccaagga agagaatggc ctggccctct gaggggtcccc 1380
aggaggaaaa cgggcaccac ccgctttctt gctgggtgtc atttttgcag tagagtcac 1440
tccatcagct gtaagaagag actgggaaga taggctctgc acagatggat ttgcctgtgg 1500
caccaccagg gtgaacgaca atagctttac cctcacggat aggcctgggt gctggctgcc 1560
cagaccctct ggccaggatg gaggggtggg cctgactcaa catgttactg accagcaact 1620
tgtctttttc tggactgaag cctgcaggag ttaaaaaggg cagggcatct cctgtgcatg 1680
ggctcgaagg gagagccagc tcccccgacc ggtgggcatt tgtgaggccc atggttgaga 1740
aatgaataat ttcccaatta ggaagtgtaa gcagctgagg tctcttgagg gagcttagcc 1800
aatgtgggag cagcggtttg gggagcagag aactaacga cttcaggga gggctctgat 1860
attccatgaa tgtatcagga aatatatatg tgtgtgtatg tttgcacact tgttgtgtgg 1920
gctgtgagtg taagtgtgag taagagctgg tgtctgattg ttaagtctaa atatttcctt 1980
aaactgtgtg gactgtgatg ccacacagag tggcttttct ggagagggtta taggtcactc 2040
ctggggccctc ttgggtcccc cacgtgacag tgcctgggaa tgtacttatt ctgcagcatg 2100
acctgtgacc agcactgtct cagtttactc ttcacataga tgtccctttc ttggccagtt 2160
atcccttcct tttagcctag ttcacccaat cctcactggg tggggtgagg accactcctt 2220
acactgaata tttatatattc actattttta tttatatattt tgtaatttta aataaaaagt 2280
atcaataaaa tgtgattttt ctga 2304

```

```

<210> 57
<211> 1743
<212> DNA
<213> Human

```

```

<400> 57
cagtatccct cctgacaaaa ctaacaaaaa tcctgttagc caaataatca gccacattca 60
tatttaccgt caaagttttt atcctcatth tacagcagtg gagagcgatt gccccgggtc 120
ccacgttagg aagagagaga actgggattt gcaccaggc aatctgggga cagagctgtg 180

```

IMMC 143 PCT.US.ST25.txt

atcacaactc catgagtcag ggccgagcca gccccttcac caccagccgg ccgcgccccg 240
 ggaaggaagt ttgtggcgga ggaggttcgt acgggaggag ggggaggcgc ccacgcatct 300
 ggggctgact cgctctttcg caaaacgtct gggaggagtc cctggggcca caaaactgcc 360
 tccttcctga ggccagaagg agagaagacg tgcagggacc ccgcgcacag gagctgccct 420
 cgcgacatgg gtcacccgcc gctgctgccg ctgctgctgc tgctccacac ctgctccca 480
 gcctcttggg gcctgcggtg catgcagtgt aagaccaacg gggattgccg tgtggaagag 540
 tgcgccctgg gacaggacct ctgcaggacc acgatcgtgc gcttggtgga agaaggagaa 600
 gagctggagc tgggtggagaa aagctgtacc cactcagaga agaccaacag gaccctgagc 660
 tatcggaactg gcttgaagat caccagcctt accgaggttg tgtgtgggtt agacttgctgc 720
 aaccagggca actctggccg ggctgtcacc tattcccgaa gccgttacct cgaatgcatt 780
 tcctgtggct catcagacat gagctgtgag aggggccggc accagagcct gcagtgccgc 840
 agccctgaag aacagtgcct ggatgtggtg acccactgga tccaggaagg tgaagaaggg 900
 cgtccaaagg atgaccgcca cctccgtggc tgtggctacc ttcccggctg cccgggctcc 960
 aatggtttcc acaacaacga caccttcac ttctgaaat gctgcaacac caccaaagtc 1020
 aacgagggcc caatcctgga gcttgaaaat ctgccgcaga atggccgcca gtgttacagc 1080
 tgcaagggga acagcaccca tggatgctcc tctgaagaga ctttctcat tgactgccga 1140
 ggccccatga atcaatgtct ggtagccacc ggcactcacg aaccgaaaaa ccaaagctat 1200
 atggtaagag gctgtgcaac cgctcaatg tgccaacatg cccacctggg tgacgccttc 1260
 agcatgaacc acattgatgt ctctgctgt actaaaagt gctgtaacca cccagacctg 1320
 gatgtccagt accgcagtgg ggctgctcct cagcctggcc ctgcccattc cagcctcacc 1380
 atcacctgc taatgactgc cagactgtgg ggaggcactc tcctctggac ctaaacctga 1440
 aatccccctc tctgccctgg ctggatccgg gggacccctt tgcccttccc tcggctccca 1500
 gccctacaga cttgctgtgt gacctcaggc cagtgtgccg acctctctgg gcctcagttt 1560
 tcccagctat gaaaacagct atctcacaaa gttgtgtgaa gcagaagaga aaagctggag 1620
 gaaggccgtg ggcaatggga gagctcttgt tattattaat attgttgccg ctgttggtt 1680
 gttgttatta attaataattc atattattta ttttatactt acataaagat tttgtaccag 1740
 tgg 1743

<210> 58
 <211> 45
 <212> DNA
 <213> Human

<400> 58
 tctagtcgac ggccagtgaa ttgtaatacg actcactata gggcg 45

<210> 59	
<211> 22	
<212> DNA	
<213> Human	
<400> 59	
tctagtcgac ggccagtga tt	22
<210> 60	
<211> 20	
<212> DNA	
<213> Human	
<400> 60	
aagacctact tcccgcactt	20
<210> 61	
<211> 20	
<212> DNA	
<213> Human	
<400> 61	
tatttgagg tcagcacggt	20
<210> 62	
<211> 23	
<212> DNA	
<213> Human	
<400> 62	
atctctgtgc aagtgcccaa gat	23
<210> 63	
<211> 25	
<212> DNA	
<213> Human	
<400> 63	
caggaacatg ttcatgacag actgt	25
<210> 64	
<211> 23	
<212> DNA	
<213> Human	
<400> 64	
gcaagagtga cagtggattg cat	23
<210> 65	
<211> 23	
<212> DNA	
<213> Human	
<400> 65	
ctaattggtgg ccaactggag act	23

<210> 66	
<211> 25	
<212> DNA	
<213> Human	
<400> 66	
agtcactgcc ttccaagtgc agcaa	25
<210> 67	
<211> 27	
<212> DNA	
<213> Human	
<400> 67	
ggaaacctga aggctgattt gaagcag	27
<210> 68	
<211> 22	
<212> DNA	
<213> Human	
<400> 68	
gtggtttgag ctcggcctat gg	22
<210> 69	
<211> 21	
<212> DNA	
<213> Human	
<400> 69	
ccagtgcctac cctgcatagc g	21
<210> 70	
<211> 28	
<212> DNA	
<213> Human	
<400> 70	
gacggtagag ttctttcatc tacggttg	28
<210> 71	
<211> 28	
<212> DNA	
<213> Human	
<400> 71	
ggaaaccaca aaacaccttg tagacacc	28
<210> 72	
<211> 24	
<212> DNA	
<213> Human	
<400> 72	
accttgagtc agagctggca caga	24

<210> 73	
<211> 24	
<212> DNA	
<213> Human	
<400> 73	
gcttctgctg gcttaatgcc tcag	24
<210> 74	
<211> 22	
<212> DNA	
<213> Human	
<400> 74	
catatccagg cgctgatcag cg	22
<210> 75	
<211> 22	
<212> DNA	
<213> Human	
<400> 75	
caaaggacag cagaagcccc ag	22
<210> 76	
<211> 25	
<212> DNA	
<213> Human	
<400> 76	
gtaagcctgg gatgtgaagc aaagg	25
<210> 77	
<211> 26	
<212> DNA	
<213> Human	
<400> 77	
gaaccctaaa gtggctcaca agagtg	26
<210> 78	
<211> 26	
<212> DNA	
<213> Human	
<400> 78	
cctgtaacct gactgggtaa cagcag	26
<210> 79	
<211> 23	
<212> DNA	
<213> Human	
<400> 79	
ggctctgact gatctgggag tca	23

<210> 80	
<211> 23	
<212> DNA	
<213> Human	
<400> 80	
gagatgcata gggaactcaa tgc	23
<210> 81	
<211> 23	
<212> DNA	
<213> Human	
<400> 81	
acgatggagt ccaagttctg gat	23
<210> 82	
<211> 21	
<212> DNA	
<213> Human	
<400> 82	
agcaggtgcc tgagacacag a	21
<210> 83	
<211> 22	
<212> DNA	
<213> Human	
<400> 83	
tcgagcatcc cgctggattc tt	22
<210> 84	
<211> 22	
<212> DNA	
<213> Human	
<400> 84	
ggaagctggc tcacttgctg aa	22
<210> 85	
<211> 22	
<212> DNA	
<213> Human	
<400> 85	
gaagcacgtg ggcattcagc at	22
<210> 86	
<211> 23	
<212> DNA	
<213> Human	
<400> 86	
tcgttggaag aggaacagca ctg	23

<210> 87	
<211> 23	
<212> DNA	
<213> Human	
<400> 87	
agcctggata ctgacaccat tgc	23
<210> 88	
<211> 20	
<212> DNA	
<213> Human	
<400> 88	
cacaccatgc aggatgacat	20
<210> 89	
<211> 20	
<212> DNA	
<213> Human	
<400> 89	
gcattccaca aggttctcag	20
<210> 90	
<211> 21	
<212> DNA	
<213> Human	
<400> 90	
agtgtccagg ctggaacaaa g	21
<210> 91	
<211> 23	
<212> DNA	
<213> Human	
<400> 91	
ctccacttga tgatgtctct cac	23
<210> 92	
<211> 22	
<212> DNA	
<213> Human	
<400> 92	
ctcccagcac tgctacgcag gc	22
<210> 93	
<211> 24	
<212> DNA	
<213> Human	
<400> 93	
gacataagaa agagaagggtg tggt	24

<210>	94	
<211>	24	
<212>	DNA	
<213>	Human	
<400>	94	
	ctcctcctgc actgctatgc agat	24
<210>	95	
<211>	29	
<212>	DNA	
<213>	Human	
<400>	95	
	acaccaaag ctgtcgtaca ctgtatgca	29
<210>	96	
<211>	20	
<212>	DNA	
<213>	Human	
<400>	96	
	ctacaatccc atggtgctca	20
<210>	97	
<211>	20	
<212>	DNA	
<213>	Human	
<400>	97	
	acacagttcc atcagaccag	20
<210>	98	
<211>	23	
<212>	DNA	
<213>	Human	
<400>	98	
	actgctggct gccttagaac ctt	23
<210>	99	
<211>	23	
<212>	DNA	
<213>	Human	
<400>	99	
	gagaagagac tcggtaggga cat	23
<210>	100	
<211>	23	
<212>	DNA	
<213>	Human	
<400>	100	
	cgtcttccag taccgagaga aag	23

<210>	101	
<211>	23	
<212>	DNA	
<213>	Human	
<400>	101	
	tgtatccggc aaactggctc ctt	23
<210>	102	
<211>	23	
<212>	DNA	
<213>	Human	
<400>	102	
	ggtgatcgtc ttggacaaag gag	23
<210>	103	
<211>	23	
<212>	DNA	
<213>	Human	
<400>	103	
	tcttcacagc cagttccagg cag	23
<210>	104	
<211>	23	
<212>	DNA	
<213>	Human	
<400>	104	
	aacggtggca gcagcctctc tta	23
<210>	105	
<211>	25	
<212>	DNA	
<213>	Human	
<400>	105	
	gcttcacac actgagaagt gtccg	25
<210>	106	
<211>	23	
<212>	DNA	
<213>	Human	
<400>	106	
	ggaagttcag ccatcagaag tac	23
<210>	107	
<211>	20	
<212>	DNA	
<213>	Human	
<400>	107	
	ggtatgggta gtaaggatag	20

<210> 108	
<211> 23	
<212> DNA	
<213> Human	
<400> 108	
ctgcctcagc ctccggagta gct	23
<210> 109	
<211> 23	
<212> DNA	
<213> Human	
<400> 109	
gtgggggtgaa aatgcagatg tgc	23
<210> 110	
<211> 25	
<212> DNA	
<213> Human	
<400> 110	
cagaactgtg caaattgcag ccgtc	25
<210> 111	
<211> 26	
<212> DNA	
<213> Human	
<400> 111	
agaccacagc agaaattcca gccaag	26
<210> 112	
<211> 23	
<212> DNA	
<213> Human	
<400> 112	
tgaagcactg agcagaagct gga	23
<210> 113	
<211> 23	
<212> DNA	
<213> Human	
<400> 113	
gagggttgtc tggaggactt caa	23
<210> 114	
<211> 26	
<212> DNA	
<213> Human	
<400> 114	
acaccgcttt ggaaacagcc ttcatc	26

<210> 115	
<211> 26	
<212> DNA	
<213> Human	
<400> 115	
gtactgatgt gcttatgggc aactgg	26
<210> 116	
<211> 23	
<212> DNA	
<213> Human	
<400> 116	
agttcagtga gagactccag gac	23
<210> 117	
<211> 23	
<212> DNA	
<213> Human	
<400> 117	
ctgcactgtg aaggctgcaa cat	23
<210> 118	
<211> 22	
<212> DNA	
<213> Human	
<400> 118	
agcacacctg ccgtcttcac tt	22
<210> 119	
<211> 22	
<212> DNA	
<213> Human	
<400> 119	
ggcacacctt tggtcactcc aa	22
<210> 120	
<211> 23	
<212> DNA	
<213> Human	
<400> 120	
ccaagaccta cactgttggc tgt	23
<210> 121	
<211> 23	
<212> DNA	
<213> Human	
<400> 121	
actgtgcagg cttcagttcc act	23

<210> 122
<211> 22
<212> DNA
<213> Human

<400> 122
tgggctgcga gtgcaagatc ac 22

<210> 123
<211> 22
<212> DNA
<213> Human

<400> 123
ctgcttatgg gtcctcgatg tc 22

<210> 124
<211> 23
<212> DNA
<213> Human

<400> 124
gccatccact tctgatgatt ctg 23

<210> 125
<211> 22
<212> DNA
<213> Human

<400> 125
accagtcttg ggcttggtaa ga 22

<210> 126
<211> 22
<212> DNA
<213> Human

<400> 126
aagcccaaga gagccccaaa ac 22

<210> 127
<211> 22
<212> DNA
<213> Human

<400> 127
tggcagagaa ggtggctcag ta 22

<210> 128
<211> 25
<212> DNA
<213> Human

<400> 128
tggtgctact ctggtgtgtc ccaag 25

IMMC 143 PCT.US.ST25.txt

<210> 129
 <211> 25
 <212> DNA
 <213> Human

<400> 129
 ctgggattca aaggaggtag agctc 25

<210> 130
 <211> 23
 <212> DNA
 <213> Human

<400> 130
 tgggctgtga gtgtaagtgt gag 23

<210> 131
 <211> 23
 <212> DNA
 <213> Human

<400> 131
 caccagtgga ggattggatg aac 23